



COUNTY BOROUGH OF SALFORD.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR

1893,

BY

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Public Health Department,

Town Hall, Salford.

March 22nd, 1894.

TO THE HEALTH COMMITTEE.

GENTLEMEN,

I have the honour to present to you my fifth Annual Report on the health of the County Borough of Salford, being the Annual Report of the Medical Officer of Health, for the year 1893. It has, as in the case of my previous reports, been drawn up in accordance with the general order of the Local Government Board in respect of such reports.

The general death rate of the Borough was below the mean rate for the quinquennial period 1886-90, and it was also less than the rate for either of the two years immediately succeeding that period, being 24·0 per 1,000 of population as against 25·7 per 1,000 for the period 1886-90, 26·0 per 1,000 in the year 1891, and 24·6 per 1,000 in the year 1892.

It will be seen from the report that additional work has been thrown upon the Health Department, in respect of the sanitary regulation of Factories and Workshops, and in the carrying out of the provisions of the Shop Hours Act of 1892. A new departure was also made, during the year, in the direction of securing the services of female health visitors, in conjunction with the Ladies Health Society. These health visitors are not merely reporters of nuisances and uncleanly houses, but will prove, it is hoped, to be also educators of cleanliness, both of the dwelling and of the children, in the poorest parts of the Borough.

This report contains a Special Map, which represents the third quinquennial Sanitary Survey of the Borough, in terms of annual rates of mortality per 1,000 living, from all causes in the several Enumeration Districts of the Borough during the period 1889-93. Maps of this description serve the useful purpose of directing attention from time to time to particular localities in a district, and they may also prove to be sources of encouragement when improvements are found to result from the operation of sanitary measures specially instituted in times past. The present map, while disappointing in some of its features, is not by any means an entirely discouraging one, and it indicates pretty clearly the directions in which further sanitary efforts must be engaged.

I am glad to be able to report that, of my former recommendations, the regular cleansing of the sewers of the Borough is actually in operation, and that the erection of a Destructor in the Pendleton District is nearly completed.

I am, Gentlemen,

Your Obedient Servant,

CHARLES E. PAGET,

Medical Officer of Health.

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I.

STATISTICAL SUMMARY, 1893.

Population. —Estimated to the			
middle of the year		Males 98,145 Females ... 105,282 Total 203,427	
Marriages	.....		1,648
Annual Rate of Persons Married per 1,000 of the Population.			16·2
Births			
	.....	Males 3,634 Females ... 3,413 Total 7,047	
Annual Rate of Births per 1,000 of the Population			34·7
Deaths			
	.....	Males 2,504 Females ... 2,391 Total 4,895	
Annual Rate of Mortality per 1,000		Males 25·5 Females ... 22·7 Total 24·0	
Excess of Registered Births over Deaths			2,152
Estimated Annual Increase of Population			2,369
Density. —The mean density of the Borough is equal to 39·3 persons per acre :—in Regent Road, 76·5 ; Greengate, 116·4 ; Pendleton, 21·6 ; Broughton, 27·3.			
Area. —The Municipal Borough of Salford comprises the Townships of Salford (divided for statistical purposes into the Regent Road and Greengate Districts), Pendleton, and Broughton, and has a total area of 5,170 acres :—in Salford, 1,329 acres (Regent Road, 1,066 ; Greengate, 263) ; Pendleton, 2,415 ; Broughton, 1,426.			
Elevation. —The mean elevation of the Borough is 140 feet above sea-level, and varies between 85 feet and 250 feet.			

POPULATION, DENSITY, ANNUAL RATES OF BIRTHS, MARRIAGES, AND DEATHS,
IN EACH OF THE THIRTY-

Year.	POPULATION (estimated to the middle of each year).					DENSITY (persons per acre).				
	Borough.	Regent Road.	Green-gate.	Pendleton.	Brough-ton.	Boro'.	Regent Road.	Green-gate.	Pendleton.	Brough-ton.
1861	102,920	33,756	37,519	21,649	9,996	19'9	31'7	142'8	9'0	7'0
1862*	104,975	34,928	37,458	22,139	10,450	20'3	32'7	142'4	9'2	7'3
1863	107,075	36,134	37,389	22,636	10,916	20'7	33'9	142'2	9'4	7'7
1864	109,262	37,374	37,313	23,182	11,393	21'1	35'0	141'8	9'6	8'0
1865	111,393	38,646	37,231	23,633	11,883	21'6	36'2	141'5	9'8	8'3
1861-65	107,125	36,167	37,382	22,648	10,928	20'7	33'9	142'1	9'4	7'7
1866	113,614	39,949	37,144	24,136	12,385	22'0	37'4	141'2	10'0	8'7
1867	115,885	41,294	37,045	24,644	12,902	22'4	38'7	140'8	10'2	9'1
1868*	118,198	42,674	36,941	25,152	13,434	22'9	40'0	140'4	10'4	9'4
1869	120,526	44,087	36,823	25,658	13,968	23'3	41'3	140'0	10'6	9'8
1870	122,965	45,551	36,704	26,177	14,533	23'8	42'7	139'4	10'8	10'2
1866-70	118,238	42,711	36,931	25,153	13,444	22'9	40'0	140'4	10'4	9'4
1871	125,890	47,195	36,517	26,920	15,258	24'3	44'2	138'8	11'1	10'7
1872	130,301	49,301	36,145	28,357	16,498	25'2	46'3	137'4	11'7	11'6
1873*	134,883	51,463	35,747	29,847	17,826	26'1	48'3	135'7	12'4	12'5
1874	139,618	53,670	35,319	31,386	19,243	27'0	50'3	134'3	13'0	13'5
1875	144,518	55,921	34,868	32,977	20,752	27'9	52'4	132'6	13'6	14'6
1871-75	135,042	51,510	35,719	29,897	17,916	26'1	48'3	135'8	12'4	12'6
1876	149,591	58,219	34,393	34,617	22,362	28'9	54'7	130'6	14'3	15'7
1877	154,842	60,561	33,898	36,308	24,075	29'9	56'8	128'8	15'0	16'9
1878	160,277	62,945	33,379	38,054	25,899	31'0	59'1	126'9	15'8	18'2
1879*	165,899	65,371	32,843	39,848	27,837	32'1	61'4	124'9	16'5	19'5
1880	171,727	67,839	32,291	41,697	29,900	33'2	63'6	122'8	17'2	21'0
1876-80	160,467	62,987	33,361	38,105	26,014	31'0	59'1	126'8	15'8	18'3
1881†	177,760	70,346	31,725	43,598	32,091	34'4	66'0	120'6	18'0	22'5
1882†	179,855	71,237	31,632	44,307	32,679	34'8	66'8	120'2	18'3	22'9
1883†	181,951	72,128	31,540	45,016	33,267	35'2	67'6	120'0	18'6	23'3
1884*†	184,047	73,019	31,447	45,725	33,856	35'6	68'5	119'6	18'9	23'7
1885†	186,142	73,911	31,353	46,434	34,444	36'0	69'4	119'2	19'2	24'2
1881-85†	181,951	72,128	31,540	45,016	33,267	35'2	67'6	120'0	18'6	23'3
1886†	188,238	74,802	31,261	47,143	35,032	36'4	70'4	118'8	19'5	24'6
1887†	190,334	75,693	31,168	47,852	35,621	36'8	71'0	118'5	19'8	25'0
1888†	192,429	76,584	31,075	48,561	36,209	37'2	71'9	118'2	20'1	25'4
1889†	194,525	77,476	30,982	49,270	36,797	37'6	72'8	117'8	20'4	25'8
1890*†	196,621	78,368	30,889	49,979	37,385	38'1	73'6	117'4	20'7	26'2
1886-90†	192,429	76,585	31,075	48,561	36,208	37'2	71'9	118'2	20'1	25'4
1891	198,717	79,257	30,797	50,688	37,975	38'5	74'6	117'1	21'0	26'6
1892	201,058	80,405	30,707	51,424	38,522	38'9	75'4	116'8	21'3	27'0
1893	203,427	81,514	30,707	52,140	39,066	39'3	76'5	116'4	21'6	27'3

* In the years 1862, 1868, 1873, 1879, 1884, and 1890 the facts are those registered in 53 instead of
† Corrected after the results of the Census of 1891.

IN THE BOROUGH OF SALFORD, AND IN ITS FOUR REGISTRATION SUB-DISTRICTS,
THREE YEARS, 1861-1893.

ANNUAL RATES PER 1,000 OF THE POPULATION.											
MARRIAGES.	BIRTHS					DEATHS.					Year.
Registration Districts.	Boro'.	Regent Road.	Green-gate	Pendle-ton.	Brough-ton.	Boro'.	Regent Road.	Green-gate.	Pendle-ton.	Brough-ton.	
11.9	39.7	40.0	43.9	38.0	26.9	24.6	27.8	26.1	21.8	13.8	1861
10.2	39.0	38.7	42.5	39.4	25.9	25.3	29.4	27.8	19.6	14.7	1862
11.7	38.0	37.9	42.0	37.0	26.9	26.0	28.3	29.1	22.5	15.0	1863
12.7	38.6	37.3	44.3	38.2	24.7	26.5	28.7	31.0	21.7	14.6	1864
12.9	37.8	37.3	42.8	36.2	26.4	29.1	32.3	32.8	25.2	14.8	1865
11.9	38.6	38.2	43.1	37.8	26.2	26.3	29.3	29.4	22.2	14.6	1861-65
13.4	37.9	38.5	42.8	35.6	25.9	28.8	32.2	33.9	23.0	13.6	1866
14.3	39.0	40.7	42.2	37.0	28.2	28.2	31.9	31.9	22.8	15.7	1867
13.3	39.3	38.5	43.5	40.4	27.9	30.5	34.3	33.0	28.7	14.9	1868
14.1	38.9	39.1	43.2	38.3	27.6	26.4	29.2	29.2	23.3	15.8	1869
14.1	39.6	41.7	43.1	36.3	30.3	25.8	30.4	27.3	21.3	15.3	1870
13.8	38.9	39.7	43.0	37.5	28.0	27.9	31.6	31.1	23.8	15.1	1866-70
14.6	40.7	43.6	44.2	39.4	26.2	30.3	34.9	32.4	27.2	16.2	1871
15.1	41.4	45.3	44.1	35.7	34.0	25.3	28.9	28.8	20.4	15.6	1872
14.3	41.5	43.7	43.0	40.5	34.1	28.3	32.2	30.1	26.6	16.7	1873
16.2	42.1	45.9	40.9	37.3	41.8	28.2	32.6	29.2	24.9	19.5	1874
17.5	44.4	48.9	41.0	40.9	43.5	29.5	34.8	32.0	23.7	20.6	1875
15.5	42.0	45.5	42.6	38.8	35.9	28.3	32.7	30.5	24.6	17.7	1871-75
20.5	45.5	47.7	43.3	44.1	45.3	29.5	34.5	30.2	24.9	22.4	1876
19.6	44.4	47.0	40.7	43.1	44.7	26.3	31.8	26.3	21.9	19.6	1877
17.9	44.7	46.5	42.5	42.9	45.6	27.1	29.8	28.8	23.6	23.2	1878
15.2	43.0	45.5	40.9	42.5	40.0	26.7	27.5	31.6	24.7	21.5	1879
16.6	41.4	41.3	41.6	42.7	39.5	27.9	31.5	33.2	23.3	20.6	1880
18.0	43.8	45.6	41.8	43.1	43.0	27.5	31.0	30.0	23.7	21.7	1876-80
16.4	38.8	40.2	39.2	38.9	34.7	22.5	24.8	24.9	21.5	16.5	1881
16.9	39.7	41.7	40.6	38.6	35.5	23.7	25.6	28.9	21.0	17.9	1882
16.1	37.3	39.9	38.5	35.2	33.0	23.6	25.8	28.6	21.3	17.0	1883
16.1	38.8	40.3	41.3	36.5	36.5	24.4	26.3	28.4	22.4	19.1	1884
16.1	37.6	40.2	36.7	36.3	34.4	23.0	25.1	28.1	20.7	17.0	1885
16.3	38.4	40.5	39.2	37.1	34.8	23.4	25.5	27.8	21.4	17.5	1881-85
15.3	38.5	39.5	40.3	37.3	36.0	24.8	26.7	30.3	22.1	19.4	1886
15.4	36.6	38.7	37.0	35.5	32.9	25.5	26.2	33.0	24.0	19.4	1887
15.2	37.1	37.7	38.6	37.5	34.1	24.8	27.7	28.2	23.5	17.7	1888
16.7	35.9	37.0	38.1	35.5	32.4	25.1	27.4	28.9	23.6	18.9	1889
17.5	36.1	38.0	38.0	35.9	30.8	27.7	28.9	36.4	25.0	21.6	1890
16.0	36.8	38.2	38.4	36.3	33.2	25.7	27.5	31.5	23.8	19.5	1886-90
18.2	36.3	37.5	38.4	36.5	31.8	26.0	26.8	32.3	25.5	19.5	1891
16.7	35.8	36.1	39.8	35.8	30.4	24.6	25.6	33.1	23.3	17.8	1892
16.2	34.7	35.4	37.6	34.8	30.6	24.0	24.9	30.2	23.6	19.1	1893

52 weeks: corrections have therefore been made in calculating the rates.

II.

MORTALITY STATISTICS.

Population

Estimated Population.—The estimated population of the Borough to the middle of the year 1893, was 203,427. This calculation is the same as that given by the Registrar-General, for reasons which I have already stated in previous reports; but I believe that the calculation is an accurate one, based on the observations, which have been possible within the area of the Borough, as to changes which have taken place. There have, however, been no very marked changes more than have been represented by the growth of new dwellings in measured excess of dwellings which have been demolished or permanently vacated. The estimated population of the four registration districts is given in Table A of this report, and is as follows:—Regent Road, 81,514; Greengate, 30,707; Pendleton, 52,140; Broughton, 39,066.

The actual excess of births over deaths during the year was 2,152, as compared with 2,235 in 1892, and with 2,054 in the year 1891. The density of the population, as has before been pointed out, differs widely in the four registration districts, and must continue to do so for many years yet to come. The greatest scope for extension of house property is in the Pendleton district into which for some years there has been a gradual migration of the artisan classes from the more crowded parts of the borough. This feature must always be borne in mind in any consideration of the mortality of that district. The marriage rate, which has somewhat recovered during the previous four years, was, for the year 1893, 16·2 per 1,000 of the population, as against 16·7 in 1892, and 18·2 in 1891.

General Mortality

Annual Rate of Mortality.—The total number of deaths for the year 1893 was 4,895, as against 4,955 in the year 1892. There were thus 60 fewer deaths in 1893 than in 1892, even though the population is estimated to have been increased in the later year by 2,369 persons. The death-rate for the borough for the year 1893 was, therefore, 24·0 per 1,000 of the population as against 24·6 in 1892, as against 26·0 in 1891, and as against 25·7 the mean rate for the quinquennial period of 1886-90 (Table A.) The rate is consequently a not unfavourable one for the borough of Salford. In arriving at the correct general death-rate care has

been taken, as formerly, to make allowance for the deaths of persons who died outside the borough while yet belonging to it, as well as for those who, not belonging to the borough, died within its boundaries. Of the former, there were 74 deaths, of the latter, there were 32 deaths. The deaths of Salford residents outside the borough were distributable as follows:—Children's Hospital, Pendlebury, 38; Manchester Royal Infirmary, 26; St. Mary's Hospital, Manchester, 9; Manchester Ear Hospital, 1.

It will be noticed that while in the years 1891 and 1892 the higher rates of general mortality were chiefly due to larger mortalities than usual from acute lung diseases, the number of deaths from those diseases in 1893 were certainly less. At the same time, the year 1893 shows a large mortality above the average from diarrhoea, which must be attributed in part to the long-continued high temperature of the earth during the summer months, and in part also, no doubt, to the difficulty experienced in the dwellings of the poor in keeping food, and especially the milk for the children, from becoming tainted during the heat of July and August. Thus while there were 121 fewer deaths from acute lung diseases in 1893 than in 1892, there were 249 more deaths from diarrhoea in the former year than in the latter. As partly compensating for the excess shewn in these two classes of mortality, there were markedly fewer deaths from measles and from whooping-cough in 1893 than there were in 1892. Further details in respect of special causes of death are, however, given further on in the report.

Annual Rate of Mortality compared with other large towns and cities of England and Wales.—The annual death rate of the Borough of Salford, as compared with the average for 33 of the other large towns and cities of the country, was 21·5 per 1,000 above the average for the year. This rate is slightly in excess as compared with that for the year 1892, when the death rate for Salford was 3·9 per 1,000 above the average for that year. The annual rate of mortality for England and Wales was equal to 19·1 per 1,000 of the population; less the 100 great English towns, it was 17·8 per 1,000; and, in London, the general mortality-rate was 21·3 per 1,000 of the population.

District Mortality-Rates.—The district mortality-rates from all causes, may be seen on reference to Tables A and D of this report. The general rates from all causes were, for Regent Road district, 24·9 per 1,000 of its population; for Greengate, 30·2; for Pendleton, 23·6; and for Broughton, 19·1; These rates are all lower than the corresponding mean rates for the quinquennial period 1886-90, but more so in the Regent Road and Greengate districts, which have habitually the highest death rates in the borough, than in the Pendleton and Broughton districts. The rates for the Regent Road and Greengate districts were,

RECORDED DEATH-RATES PER 1,000 IN 33 GREAT TOWNS
IN 1893.

Towns in the order of their recorded Death-rates.	Recorded Death-rate.
England and Wales	19'17
England and Wales less the 33 Towns	17'90
33 Great English Towns	21'57
Croydon	16'30
Norwich	19'28
Brighton	18'42
Portsmouth	18'22
Halifax	17'36
Bristol	18'93
Nottingham	18'46
Huddersfield	17'20
Derby	18'24
West Ham	18'91
Plymouth	21'25
Gateshead	19'30
Swansea	19'62
Leicester	20'01
Cardiff	19'68
Birkenhead	20'54
London	21'31
Newcastle-upon-Tyne	21'00
Hull	21'84
Sunderland	22'53
Bradford	20'96
Oldham	21'01
Birmingham	21'98
Wolverhampton	23'27
Leeds	22'29
Sheffield	22'31
Burnley	21'88
Blackburn	23'28
Salford	24'08
Bolton	24'12
Manchester	24'90
Preston	26'37
Liverpool	27'34

TABLE B.

ESTIMATED POPULATION, AND ANNUAL RATES OF MORTALITY, AT ALL AGES,
AND AT FIVE GROUPS OF AGES, IN THE FIFTY-TWO WEEKS OF THE YEAR
1893, AND IN EACH YEAR IN THE PRECEDING DECADE.

	PERSONS		MALES		FEMALES	
	Estimated Population, 1893.	Deaths 1893.	Estimated Population, 1893.	Deaths, 1893.	Estimated Population, 1893.	Deaths, 1893.
All Ages.....	203,427	4,895	98,145	2,504	105,282	2,391
Under 5 years.....	26,210	2,245	13,039	1,191	13,171	1,054
5-20 years	68,315	311	33,895	170	34,420	141
20-40 years	65,464	591	31,344	285	34,120	306
40-60 years	33,790	863	15,883	455	17,907	408
60 and upwards	9,648	885	3,984	403	5,664	482

ANNUAL RATES OF MORTALITY, TEN YEARS, 1883-92, AND IN 1893.

		1883.	1884.	1885	1886.	1887.	1888.	1889.	1890.	1891. ⁷	1892.	Mean 1883 to 1892.	1893.
PERSONS	All Ages	23'6	24'4	23'0	24'8	25'1	24'8	25'1	27'7	26'0	24'6	24'9	24'0
	Under 5 Years.	76'5	85'1	77'2	87'1	91'8	85'8	89'8	92'9	89'4	90'8	86'6	85'7
	5-20 ..	5'9	5'6	5'2	5'8	5'7	5'9	7'2	6'9	5'0	5'0	5'8	4'6
	20-40 ..	9'1	9'6	9'5	9'0	8'9	9'4	8'7	10'4	9'7	9'3	9'4	9'0
	40-60 ..	24'5	23'2	23'1	25'2	25'3	25'2	24'6	30'6	28'6	25'4	25'6	25'5
	60 and upwards.	83'5	79'7	81'6	84'4	89'4	89'7	83'9	102'5	103'7	85'7	88'4	91'8
MALES	All Ages	25'4	25'7	24'5	25'7	26'6	25'4	27'0	29'4	27'1	25'3	26'2	25'5
	Under 5 Years.	81'4	92'7	82'9	94'4	95'8	87'8	95'7	100'0	95'5	92'0	91'8	91'4
	5-20 ..	6'1	5'9	5'6	5'9	5'8	5'9	7'5	6'8	5'2	5'3	6'0	5'0
	20-40 ..	10'1	9'4	10'0	8'9	9'5	9'6	9'5	11'1	9'6	9'6	9'7	9'1
	40-60 ..	29'5	23'9	24'7	27'4	27'7	27'6	28'0	36'0	32'5	28'3	28'6	28'6
	60 and upwards	89'4	86'5	88'1	85'9	91'5	93'3	95'6	102'6	105'1	88'1	92'6	101'2
FEMALES	All Ages	21'9	23'2	21'7	24'0	24'5	24'3	23'3	26'2	24'9	24'1	23'8	22'7
	Under 5 Years.	71'6	74'1	71'2	82'1	87'8	83'7	83'9	85'9	83'3	89'5	81'3	80'0
	5-20 ..	5'7	5'4	4'7	5'7	5'6	5'8	6'9	7'1	4'8	4'6	5'6	4'1
	20-40 ..	8'2	9'8	8'8	9'2	8'4	9'3	8'0	9'8	9'7	9'0	9'0	9'0
	40-60 ..	20'1	22'5	21'6	23'3	22'6	23'1	21'6	26'0	25'1	22'9	22'9	22'8
	60 and upwards	79'6	75'2	77'2	83'4	88'1	87'2	75'9	102'6	102'8	84'0	85'6	85'1

District
Mortality.

moreover, less than in the year 1892, but the rates for the Pendleton and Broughton districts were higher, the former only slightly so, the latter considerably more. The specially heavy mortality in the Broughton district appears to have been due to an excess of deaths within it from diarrhoeal and tubercular diseases.

The highest district zymotic mortality-rate was in the Pendleton district, as against the Greengate district in 1892, and the Pendleton district in 1891. It is, however, a notable fact that the total district mortality-rates for the six chief zymotic diseases were all below the average rates for the five preceding years, 1888-92. The same remark holds good also as to like mortalities in respect of infants under five years of age. These are satisfactory features so far as they go; but they are unfortunately nearly equalised by the excessive mortalities in each district due to diarrhoeal diseases. The greatest mortality from these diseases occurred, as might be supposed, from the conditions of property within them, in the Regent Road and Greengate districts, and in these districts the rates were nearly the same as each other; they were, too, nearly equal in the Pendleton and Broughton districts, but not much more than half what they were in the other two districts. The total rate for diarrhoea-mortality for the whole borough was exactly 1.0 per 1,000 of population more than for the average of the five years 1888-92, and this as I have said before must be in large part attributed to the meteorological and other conditions characteristic of the summer months of 1893.

The district rates of mortality from other constitutional, developmental, and local diseases were generally less than for the quinquennial period 1888-92, as also was the case in respect of phthisis and acute lung diseases; so that, apart from the exceptional mortality from diarrhoea, the district and general health of the borough has shewn more marked improvement during the year 1893, than would appear from the bare statement of its general death-rate,—24.0 per 1,000 of the population.

Mortality in Age Groups.—Table B shows the annual rates of mortality in the age-groups 0-5, 5-20, 20-40, 40-60, and at 60 years and upwards, as well as at all ages, amongst males, females, and total population, in the year 1893, and in each year of the preceding decennium 1883-1892.

Mortality in
Age-classes

From this it will be seen that the total death-rate per 1,000 of population in the year 1893, was 0.9 less than for the decennium, while, with the exception of the age-group of 60 years and upwards, the death-rates for all the several groups of ages was also below the average of the decennium 1883-92. Indeed the death-rate for the age-group 5-20 years was lower than in any single year of the decennium, and the other groups bear not unfavourable comparison.

TABLE C.

BIRTHS IN THE BOROUGH OF SALFORD AND IN ITS REGISTRATION SUB-DISTRICTS, AND DISTINGUISHING DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD.

IN THE 52 WEEKS OF THE YEAR 1893.

	Births.		Percentage of Illegitimate Births to Total Births.	Deaths under One Year.		Proportion of Deaths under One Year per 1,000 Births.		
	Total.	Illegit.		Total.	Illegit.	Total.	Legit.	Illegit.
Borough	7047	252	3·6	1494	115	211	203	456
Regent Road District ...	2882	104	3·6	625	47	217	208	452
Greengate ,,	1155	56	4·8	283	19	245	240	339
Pendleton ,,	1817	62	3·4	363	23	200	194	371
Broughton ,,	1193	30	2·5	223	26	187	169	867

CORRESPONDING DATA FOR THE TEN YEARS 1883-1892.

Borough	70693	2986	4·2	13335	1103	189	181	369
Regent Road District ...	29260	1308	4·5	5891	475	201	194	363
Greengate ,,	11968	590	4·9	2495	219	208	200	372
Pendleton ,,	17483	687	3·9	3122	260	179	170	378
Broughton ,,	11982	401	3·3	1827	149	153	145	372

Infantile Mor-
tality and Births

Infantile Mortality.—Births.—There were 1,494 deaths of infants under one year of age, as compared with 1,338 deaths in 1892, 1,399 deaths in 1891, and 1,415 deaths in 1890. The number of births was 7,047, as against 7,190 in 1892, 7,213 in 1891, and 7,098 in 1890. The deaths were, therefore, more and the births fewer than in the three preceding years, thus, the proportion of deaths under one year of age per 1,000 births was necessarily higher than in either of those years. In the year 1890, the rate was 199, in 1891 it was 194, in 1892 it was 186, and in 1893 it was 211. The excess of deaths at this period of life during 1893 is largely accounted for by the fact that of the total 447 deaths from diarrhoea, no less than 322 or 72·2 per cent. were of infants under one year of age. But there is, besides, a lesser fact in this connection which calls for comment in this place. I refer to the enormous proportion of the deaths of illegitimate children under one year of age to the total births, particularly in the Broughton district. There were 30 births of illegitimate children in Broughton, of whom 26 died, thus giving what is an exaggerated proportion of 867 deaths under one year per 1,000 births in that district. Of these deaths, however, 15 occurred in an institution or home which was registered under the Infant Life Protection Act, in 1892. The mothers of these infants are classable as follows:—Domestic Servants, 12; Milliner, 1; Cotton Operative, 1; Pattern Designer, 1. The causes of death among the infants were of the usual kind. Between June 20th and September 17th seven died from diarrhoea, four deaths were attributed to pneumonia or bronchitis, two to atrophy, and one each to tubercular disease and convulsions.

PROPORTION OF DEATHS UNDER ONE YEAR OF AGE PER 1,000
BIRTHS IN 33 GREAT TOWNS OF ENGLAND IN 1893.

The 33 Great Towns	182		
Huddersfield	141	Halifax	173
Bristol	142	Newcastle-on-Tyne ..	174
Croydon	154	Cardiff	179
Derby	156	Oldham	186
London	165	Sunderland	190
Portsmouth	165	Sheffield	192
Nottingham	169	Bradford	196
Plymouth	170	Norwich	196
Brighton	170	Birkenhead	197
Swansea	170	Birmingham	199
Gateshead	172	Bolton	200
West Ham	172	Manchester	203

PROPORTION OF DEATHS UNDER ONE YEAR, &c — *Continued.*

Infantile Mortality and Births

Leeds	206	Leicester	219
Hull	207	Burnley	223
Wolverhampton ...	209	Blackburn	243
Salford	211	Preston	268
Liverpool	211		

On further special enquiry I found that it was unfair to saddle the Broughton district with a formidable death-rate among illegitimate infants, especially as the illegitimacy rate in that district is markedly below the rate for the whole borough, and much less than in any other district of the borough. Everyone of the births of these children had occurred outside the Borough, 9 at a Maternity in Manchester, and the others elsewhere. Allowing, therefore, for these deaths, which were not among the illegitimate children born within the district, the proportion of deaths under one year per 1,000 births in the Broughton district among illegitimates should be 367 instead of 867, and the same rate for the Borough should be 397 instead of 456. Further, the total proportion of deaths under one year per 1,000 births in the Broughton district should be 174 instead of 187, and for the whole Borough 209 instead of 211.

Senile Mortality.—Of the total 4,895 deaths at all ages and from all causes, 885, or 18·0 per cent. were of persons who had reached or had passed beyond the age of 60 years, as against 16·4 per cent. in the year 1892, 18·9 per cent. in 1891, and as against 17·5 per cent. in 1890. The death-rate for aged persons was 91·8 per 1,000 of the persons aged 60 years and upwards in the Borough, as against 93·2 per 1,000 the average for the quinquennial period 1888-92. The number of aged persons who, during the year 1893, died from bronchitis and pneumonia were respectively 179 and 88, as against 162 and 74 in the year 1892. The death-rate, therefore, of old people who died in 1893, from bronchitis and pneumonia was 30·1 per cent. of the total deaths at that period of life, as against 30·1 per cent. in 1892, and 30·9 per cent. in 1891. From these figures it will be seen that there is no great variation in the fatality among aged persons from acute lung diseases, which year by year appear to account for something less than one-third of the total deaths in old age in Salford.

Classification of Causes of Deaths.—Of the total 4,895 deaths at all ages, and from all causes, there were of—

Zymotic diseases	914	deaths, or	18·7	per cent. of the total deaths.
Constitutional	855	„	17·5	„ „ „
Developmental	372	„	7·6	„ „ „
Local	2,161	„	44·1	„ „ „
Other	593	„	12·1	„ „ „

TABLE D.

ANALYSIS OF MORTALITY—ANNUAL RATES PER 1,000 LIVING IN EACH OF THE REGISTRATION SUB-DISTRICTS OF SALFORD IN THE 52 WEEKS OF THE YEAR 1893 AND THE AVERAGE ANNUAL RATES IN THE PREVIOUS QUINQUENNIUM.

REGISTRATION SUB-DISTRICTS	ANNUAL RATE OF MORTALITY AT ALL AGES FROM ALL CAUSES AND FROM FIVE CLASSES OF DISEASE.											
	All Causes		Zymotic		Constitutional.		Developmental		Local.		Other Classes.	
	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893
REGENT RD	27·3	24·9	5·3	4·2	4·2	4·2	2·0	2·2	12·6	11·1	3·2	3·2
GREENGATE	31·9	30·2	6·0	5·6	5·4	4·5	2·1	2·1	15·4	14·0	3·0	3·9
PENDLETON	24·2	23·6	4·9	5·1	4·7	4·4	1·7	1·6	10·5	9·9	2·4	2·6
BROUGHTON	19·1	18·2	3·4	3·4	3·5	3·7	1·4	1·2	8·9	8·0	1·8	1·9
BOROUGH...	25·6	24·0	4·9	4·5	4·3	4·2	1·8	1·8	11·8	10·6	2·7	2·9

REGISTRATION SUB-DISTRICTS	FROM ALL CAUSES				AT ALL AGES FROM							
	Under 1 Year per 1000 Births.		Over 60 years.		Six Zymotics		Diarrhœa.		*Acute Lung Diseases.		Phthisis	
	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893
REGENT RD	208	217	93·5	100·4	3·4	1·8	1·5	3·2	7·1	5·8	2·1	1·9
GREENGATE	199	245	117·4	108·7	4·1	1·7	1·4	3·4	8·8	7·2	2·7	2·6
PENDLETON	178	200	87·8	83·4	3·6	2·8	1·0	1·9	5·0	4·8	2·0	1·9
BROUGHTON	150	187	79·1	69·6	2·5	1·4	0·6	1·8	4·3	3·8	1·7	1·6
BOROUGH...	189	211	93·2	91·8	3·4	1·9	1·2	2·2	6·3	5·4	2·1	1·9

REGISTRATION SUB-DISTRICTS	ANNUAL RATE OF MORTALITY UNDER FIVE YEARS PER 1000 LIVING AT THAT AGE.											
	All Causes.		Nervous Diseases.		Six Zymotics		Diarrhœa.		*Acute Lung Diseases.		Tubercular Disease.	
	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893	Five Years 1888-92	1893
REGENT RD	98·2	85·1	7·9	5·8	18·6	7·8	10·2	15·6	21·5	15·8	8·2	8·8
GREENGATE	108·0	105·4	8·7	7·0	23·9	9·0	10·2	23·6	23·4	19·8	12·7	7·0
PENDLETON	83·6	87·6	6·5	4·4	19·0	15·3	6·4	13·5	16·1	15·3	11·5	11·9
BROUGHTON	64·2	67·5	7·3	4·7	12·7	6·8	4·6	13·5	14·2	11·6	6·9	11·6
BOROUGH...	89·8	85·7	7·6	5·4	18·5	9·8	8·2	15·9	19·1	15·5	9·5	9·8

*True Croup is not included amongst "Acute Lung Diseases" in this table, although it forms part of the Sub-order "Respiratory diseases" of the Registrar General. It is however included in the "Local Class" of diseases at the head of the table.

The zymotic death-rate was thus 1·7 per cent. of the total Causes of Deaths deaths less than in the year 1892. In that year the proportion of zymotic fatality was 20·3 per cent. or more than one-fifth part of the total deaths. In spite of the sharp epidemic of small-pox which prevailed during three-fourths of the year, the mortality from this disease was only 0·1 per 1,000 of the population; the mortality from measles which in 1892 had been as high as 1·5 per 1,000, fell again to 0·4 per 1,000,—a rate which is lower than in either of the quinquennial periods 1881-85 or 1886-90, or for the year 1891; and the mortality from whooping cough, which in 1892 had been 1·0 per 1,000, again fell to one-half that amount—0·5 per 1,000 of the population.

The deaths from scarlet-fever were only 39, as against 81 in 1892, and 36 in 1891, thus showing a falling off in fatality and a return to the more normal condition of things preceding the year 1892. This fact is all the more pleasing, inasmuch as the number of notifications of fresh cases of the disease was the same for the year 1893 as for the year 1892. The death-rate was, therefore, 0·2 per 1,000 of the population, as against 0·4 per 1,000 in the year 1892.

The deaths from diphtheria showed a further decline in 1893 on the deaths for the two preceding years, being 47 for the year 1893, as against 53 in 1892, and 78 in 1891. Here again, as in the case of scarlet-fever, it has to be recorded that there was smaller fatality, even though the number of cases of diphtheria were three more in 1893 than for the year 1892. The difference was, however, made up by a slight increase in the fatality from cases of membranous croup, a disease which for statistical purposes can hardly be separated from diphtheria; and thus, while it is possible to record that there was in 1893 no increase in the mortality from the sum total of these diseases, it cannot be said that there was any actual diminution in mortality from them.

The deaths from diarrhœa and, so called, simple cholera, were respectively 447 and 6, making a total of 453 deaths, as against 198 in 1892, and 177 in 1891. The diarrhœa mortality was, therefore, at the rate of 9·2 per cent. of the total deaths, as against 4·0 per cent. in 1892, and 3·4 per cent. in 1891. As I mentioned in the earlier portion of this report, the excessive mortality from diarrhœa was intimately associated with the long-continued high temperature of the earth during the summer months. In this connection, it is to be noted that the temperature recorded by the four-foot Earth Thermometer in the neighbourhood of Salford did not reach 56° Fahr. until June 21st; but from that date till October 7th, the temperature recorded by that thermometer continued to be 56° Fahr. or over, on some days even reaching the height of 61° Fahr. Up to the end of the week ending June 17th, there had been only 42 deaths from diarrhœa

TABLE E.

AVERAGE ANNUAL RATES OF MORTALITY PER 1,000 LIVING AT CERTAIN AGE-GROUPS IN TWO SUCCESSIVE QUINQUENNIA, AND THE ANNUAL RATES IN THE YEAR 1893.

CAUSES OF DEATH.	All Ages.			Under 5 years.			5-20 years.		
	Quinquennial Means.		Year.	Quinquennial Means.		Year.	Quinquennial Means.		Year.
	1883-87.	1888-92.		1883-87.	1888-92.		1883-87.	1888-92.	
	1883-87.	1888-92.	1893.	1883-87.	1888-92.	1893.	1883-87.	1888-92.	1893.
All Causes	24'3	25'6	24'0	83'5	89'7	85'7	5'6	6'0	4'5
Smallpox	0'0	0'0	0'1	0'0	0'0	0'3	0'0	0'0	0'0
Measles	0'9	0'9	0'4	5'9	6'5	3'4	0'1	0'2	0'0
Scarlatina	0'7	0'5	0'2	3'1	2'6	1'1	0'7	0'5	0'1
Diphtheria	0'1	0'6	0'2	0'5	2'9	1'3	0'1	0'6	0'2
Croup (not spasmodic).....	0'2	0'2	0'2	1'5	1'2	1'1	0'1	0'1	0'1
Whooping Cough	0'6	0'9	0'5	4'1	6'2	3'5	0'1	0'1	0'1
Cont'd Fevers. { Typhus	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
{ Enteric	0'4	0'4	0'5	0'2	0'2	0'2	0'5	0'5	0'4
{ Continued.....	0'0	0'0	0'0	0'1	0'0	0'0	0'0	0'0	0'0
Diarrhœa and Dysentery ..	1'7	1'2	2'2	11'3	8'2	15'9	0'0	0'0	0'1
Puerperal Fever	0'1	0'1	0'1	0'0	0'0	0'0	0'0	0'0	0'0
Other Zymotics	0'4	0'3	0'3	1'9	1'4	1'3	0'0	0'0	0'0
Phthisis	2'6	2'1	1'9	0'9	0'4	0'4	1'0	0'8	0'6
Other Tubercular Diseases	1'2	1'4	0'9	7'4	9'1	9'4	0'4	0'6	0'5
Diseases of { Brain	3'0	2'3	2'0	10'6	7'6	5'4	0'6	0'3	0'2
{ Heart	1'2	1'2	1'4	0'2	0'2	0'1	0'3	0'3	0'3
{ Lungs	5'2	6'2	5'5	16'3	19'1	16'5	0'6	0'8	0'9
{ Digestive System	1'0	1'1	1'2	2'5	3'3	4'8	0'2	0'2	0'3
Other Diseases	5'2	6'2	6'5	16'9	20'8	21'0	0'8	0'9	0'7
CAUSES OF DEATH.	20-40 years.			40-60 years.			Over 60 years.		
	Quinquennial Means.		Year.	Quinquennial Means.		Year.	Quinquennial Means.		Year.
	1883-87.	1888-92.		1883-87.	1888-92.		1883-87.	1888-92.	
	1883-87.	1888-92.	1893.	1883-87.	1888-92.	1893.	1883-87.	1888-92.	1893.
All Causes	9'2	9'5	9'0	24'2	26'9	25'6	83'8	93'2	91'8
Smallpox	0'0	0'0	0'2	0'0	0'0	0'1	0'0	0'0	0'0
Measles	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
Scarlatina	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
Diphtheria	0'0	0'0	0'0	0'0	0'0	0'1	0'0	0'1	0'0
Croup (not spasmodic).....	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
Whooping Cough	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
Cont'd Fevers. { Typhus	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
{ Enteric	0'4	0'5	0'7	0'3	0'4	0'3	0'0	0'1	0'2
{ Continued	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0	0'0
Diarrhœa and Dysentery ..	0'0	0'0	0'1	0'2	0'2	0'4	1'4	1'4	1'6
Puerperal Fever	0'1	0'2	0'2	0'0	0'1	0'0	0'0	0'0	0'0
Other Zymotics	0'1	0'1	0'1	0'2	0'2	0'2	0'4	0'4	0'2
Phthisis	4'0	3'4	2'7	4'3	3'9	3'9	1'7	1'9	3'2
Other Tubercular Diseases	0'1	0'1	0'1	0'0	0'1	0'0	0'0	0'0	0'0
Diseases of { Brain	0'6	0'5	0'4	2'8	2'8	2'5	14'2	12'4	14'0
{ Heart	0'8	0'7	0'9	2'8	2'9	3'3	8'1	8'0	8'0
{ Lungs	1'1	1'8	1'5	6'7	9'1	7'4	27'7	29'3	30'0
{ Digestive System	0'4	0'4	0'4	1'6	1'5	1'6	3'5	3'9	2'3
Other Diseases	1'6	1'8	1'7	5'3	5'7	5'8	26'7	35'7	32'3

in Salford. In the week named, there were 10 deaths, in the six succeeding weeks there were respectively 17, 27, 22, 35, 47, and 22 deaths from diarrhœa. The highest number of deaths from this disease in any one week was 47, and that was in the week ending July 29th. The number of deaths from diarrhœa throughout the period of weeks ending June 17th and October 7th, were represented by double figures; before and after that period in no week did the number of deaths exceed 7. The total number of deaths from diarrhœa after October 7th amounted to 31. Thus during the period when the four-foot earth thermometer registered 56° Fahr. or over, the number of deaths from diarrhœa was 377 out of a total of 453 for the whole year, or 83·2 per cent. The Regent Road and Greengate districts were those which suffered the most severely, but it was noticeable that the Pendleton district was the only one in which the diarrhœa mortality-rate did not exceed double the rate for the quinquennial period 1888-92.

The deaths from the acute lung diseases showed a further decline on the numbers for the three preceding years, there having been a total of 1,096 deaths in 1893, 1,212 in 1892, 1,476 in 1891, and 1,501 in 1890. It will, however, be remembered that, during the years 1890-92 inclusive, epidemic influenza was extremely prevalent in the borough, and in addition to causing a certain amount of mortality, left persons attacked by it, exceptionally liable to the contraction of acute lung affections. This disease, moreover, when it attacked aged persons undoubtedly rendered most of them less capable of recovery from subsequent attacks of bronchitis or pneumonia. The disease was apparently quite as, if not slightly more so, prevalent in the year 1893 as in the preceding year, and it would thus seem as if the exceptionally warm summer months had had an influence in the reduction of the mortality from lung affections; certainly there was a marked difference in mortality from such diseases during the second and third quarters of the year, as compared with the same quarters in the year 1892, a difference amounting to 80 deaths. The influence of epidemic influenza was most apparent during the second and fourth quarters of the year. During those quarters the mortality was heavy, amounting to 24 and 44 deaths respectively; in the first quarter there were only nine deaths attributable to epidemic influenza and in the third quarter only two. In 1890, the number of deaths attributed to epidemic influenza was only 20, in 1891, the number rose to 100, in 1892, it fell down to 65, and in 1893, the number was again somewhat raised to 79. The following table shows the mortality from this disease during the year, in each of the four districts of the borough.

Causes of Deaths

EPIDEMIC INFLUENZA MORTALITY, 1893.

DISTRICTS.	TOTAL.	0-5	5-20	20-40	40-60	60—
Regent Road.....	19	4	5	3	4	3
Greengate	7	2	...	1	2	2
Pendleton	21	3	5	3	4	6
Broughton.....	32	6	3	6	8	9
Borough	79	15	13	13	18	20

As in former similar tables it will be seen that the heaviest amount of mortality from influenza was upon persons in or past the period of middle life.

The total death-rate from acute lung diseases fell, as will be seen on reference to Table E, below the rate for the quinquennial period 1888-92, and more nearly approached that which was the mean rate for the period 1883-87. This is a satisfactory feature of the year 1893.

The total deaths from phthisis during the year were 393, as against 382 in 1892. Adding these deaths to those classified as from acute lung diseases, the total mortality from these several diseases amounted for the year to 1,489 as against 1,594 in 1892. Thus, the deaths from these diseases were equal to 30·4 per cent. of the total mortality of the borough in 1893, as against 32·1 per cent. in 1892, and as against 36·5 per cent. in 1891. A satisfactory feature of the mortality from Phthisis in the year 1893 is that while it remains at the same rate as in the year 1892, it is still slightly below the rate for the quinquennial period 1888-92, and much more so than for the period 1883-7. This is especially noticeable between the ages of 5-20, and 20-40 years, as may be seen on reference to Table E of this report.

Following up the memorandum on the Prevention of Phthisis adopted by the Corporation in 1892, and which is again added to this report as an appendix (No. I.), I have to state that disinfection of the homes of phthisical patients has been requested in seventeen instances. It may be well at this time to follow up that memorandum, of which copies were sent to every medical practitioners in the borough, by a briefer handbill on the subject, which should be distributed from house to house throughout the borough, so that a more general recognition as phthisis as a disease communicable by the dried sputum of phthisical patients may be secured.

TABLE F1.

CAUSES OF DEATH REGISTERED IN EACH OF THE TEN YEARS 1883-92,
IN 1893, AND THE AVERAGE DECENNIAL NUMBER.

	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	Average	1893
All Causes	4287	4486	4283	4672	4856	4775	4877	5533	5159	4955	4788	4895
Small Pox	...	...	1	...	...	8	...	...	...	1	1	22
Measles	156	100	178	47	320	132	220	103	130	306	169	91
Scarlet Fever	82	144	62	169	155	101	184	122	36	81	114	39
Typhus Fever	3	10	10	1	1	7	2	4	...	1	4	2
Whooping Cough	105	131	129	127	64	222	59	182	181	194	139	98
Diphtheria	24	22	17	12	21	61	206	206	78	53	70	47
Ill-defined Fever	6	8	5	5	2	3	2	...	...	3	3	1
Enteric Fever	64	81	48	61	82	90	112	83	76	79	78	96
Simple Cholera	...	3	2	8	1	1	3	5	1	...	2	6
Diarrhœa, Dysent:	210	374	244	393	339	184	340	256	177	198	272	447
Venereal Affections	56	53	41	35	27	41	34	30	21	19	36	25
Erysipelas	19	15	21	7	14	13	15	7	6	13	13	11
Pyæmia	9	6	1	3	8	7	7	16	6	10	7	11
Puerperal Fever	9	8	11	7	8	18	11	20	25	18	14	16
Other Zymotics	6	5	4	3	4	8	4	3	...	...	4	2
Parasitic Diseases	4	4	5	7	9	4	5	5	5	6	5	2
Dietic Dis: Intemp:	17	15	21	25	17	20	17	17	21	14	18	23
Rheumatic Fever	15	19	13	20	26	20	17	16	6	11	16	7
Cancer	73	93	96	90	94	103	109	100	103	119	98	121
Tabes Mesenterica	82	74	84	119	98	79	80	107	112	78	91	72
Tuberc: Mening:	96	93	95	95	60	75	115	171	165	155	112	133
Phthisis	489	477	487	489	433	446	365	425	436	382	443	393
Scrofula	27	31	41	70	49	35	50	78	47	62	49	84
(Constit: Dis: (other)	33	40	28	23	35	39	60	37	43	41	38	45
Prem: Birth	97	121	115	144	124	113	105	128	142	134	122	143
Devel: Dis: & Cong: Def:	20	20	25	20	23	25	21	11	15	19	20	16
Old Age	144	119	123	145	175	203	216	257	249	177	181	213
Apoplexy and Paralysis	182	160	161	161	192	166	172	182	180	180	174	195
Epilepsy	27	16	18	16	27	18	27	11	21	19	20	17
Convulsions	171	178	190	189	203	217	182	143	153	149	178	135
Brain & Nerv: Dis: (other)	188	180	162	161	182	173	107	58	85	51	135	55
Heart Diseases	211	194	220	241	251	224	249	261	222	242	232	278
Croup	54	52	36	32	46	56	51	28	24	30	41	30
Bronchitis	544	524	559	629	556	569	502	660	737	524	580	523
Pneumonia	317	317	350	334	416	413	375	743	588	584	444	470
Lung & Respr: Dis: (other)	71	54	54	41	72	83	63	70	127	104	74	103
Teething	13	32	7	1	2	2	12	37	61	45	21	27
Diges: Org: Dis:	181	168	151	171	169	172	181	219	161	196	177	217
Urinary Org: Dis:	65	75	68	99	72	96	83	86	71	79	79	63
Parturition	12	30	33	33	35	36	39	25	25	24	29	28
Gener: Orgs: Dis:	11	6	6	7	13	18	7	3	4	1	8	4
Other Local Diseases	19	13	33	43	35	30	27	36	30	27	29	16
Accident	90	91	98	110	123	112	111	123	144	132	113	131
Homicide	3	2	1	1	3	9	2	2	...	1	2	1
Suicide	12	8	7	15	14	25	13	16	14	19	14	8
Atrophy	186	218	174	214	209	242	243	323	303	266	238	305
Ill-defined Causes	84	102	48	49	47	56	72	118	128	108	81	123

1893.	0—1 Years.					1—5 Years.					5—20 Years.				
	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.
All Causes	625	283	363	223	1494	279	137	239	96	751	146	43	76	46	311
Small Pox	1	2	1	...	4	1	1	...	1	3	1	1	...	...	2
Measles	8	2	7	2	19	21	9	37	4	71	...	...	1	3	1
Scarlet Fever	...	...	...	...	...	11	3	8	7	29	2	...	7	1	10
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Whooping Cough	16	5	12	1	34	10	7	32	8	57	2	3	1	1	7
Diphtheria	2	...	2	1	5	12	5	5	7	29	3	1	5	2	11
Ill-defined Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Enteric Fever	...	...	...	...	...	1	2	1	1	5	19	1	6	4	30
Simple Cholera	...	...	1	...	1	...	...	1	...	1	...	...	1	...	1
Diarrhœa, Dysent :	131	68	71	52	322	35	26	20	12	93	1	...	2	...	3
Venereal Affections	7	9	7	1	24	...	...	...	...	...	...	...	...	...	...
Erysipelas	1	1	...	1	3	...	...	...	...	...	...	...	...	...	...
Pyæmia	2	...	1	1	4	...	1	1	...	2	1	...	...	...	1
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Zymotics	1	...	...	...	1	1	...	...	...	1	...	...	...	...	...
Parasitic Diseases	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...
Dietic Dis : Intemp :	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Cancer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesent :	30	3	7	10	50	6	3	5	4	18	2	1	1	...	4
Tubercul : Mening :	15	6	9	12	42	15	8	29	17	69	11	3	6	1	21
Phthisis	1	...	1	...	2	5	...	1	2	8	21	9	7	6	43
Scrofula	9	3	11	9	32	12	5	19	1	37	3	2	1	2	8
Constit : Dis : (other)	1	...	...	1	2	8	1	1	1	11	4	1	...	2	7
Prem : Birth	69	17	45	12	143	...	...	...	...	...	...	...	...	...	...
Devel Dis : & Cong : Def : ...	6	2	3	3	14	...	...	1	1	2	...	...	...	...	...
Old Age	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Apoplexy and Paralysis	...	...	...	...	...	1	...	1	...	2	1	1	...	...	2
Epilepsy	...	...	1	...	1	...	...	...	...	...	1	1	1	...	3
Convulsions	44	22	23	15	104	13	6	4	5	28	...	1	...	1	2
Brain & Nerv : Dis : (other)	2	...	1	2	5	2	...	...	...	2	1	...	4	1	6
Heart Diseases	1	...	1	...	2	1	...	1	...	2	8	4	6	5	23
Croup	1	1	...	...	2	8	6	5	4	23	3	2	...	...	5
Bronchitis	46	24	32	22	124	26	12	19	5	62	7	2	1	2	12
Pneumonia	42	23	20	12	97	44	19	29	10	102	16	3	6	1	26
Lung & Respir : Dis : (other)	2	1	5	5	13	8	...	...	1	9	5	...	5	5	15
Teething	8	5	4	2	19	5	2	...	1	8	...	...	...	...	...
Diges : Org : Dis : of	33	14	21	10	78	10	5	4	1	20	9	...	3	7	19
Urinary Org : Dis : of	...	...	...	...	...	1	...	3	...	4	3	...	...	...	3
Parturition, dis : of	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Gener : Orgs : dis : of	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Local dis :	1	...	...	...	1	2	2	...	1	5	5	...	2	...	7
Accident	20	11	3	2	36	8	5	6	1	20	11	4	5	3	23
Homicide	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suicide	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy	108	59	67	41	275	11	9	3	1	24	1	...	...	...	1
Ill-defined Causes	16	5	6	6	33	1	...	3	...	4	5	3	3	...	11

20—40 Years.					40—60 Years.					60 Years and Upwards.					Borough All Ages for year.
Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	
243	96	154	98	591	349	196	198	120	863	384	173	202	126	885	4895
5	3	2	...	10	1	...	1	1	3	...	...	...	...	...	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	91
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	98
...	...	...	...	...	1	1	...	...	2	...	...	...	...	...	47
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
23	5	14	7	49	3	2	2	3	10	...	...	1	1	2	96
...	...	...	...	...	...	...	...	1	1	1	1	...	...	2	6
2	1	...	1	4	3	2	3	4	12	5	5	1	2	13	447
...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	25
1	1	1	...	3	1	1	1	...	3	...	2	...	...	2	11
1	...	...	1	2	2	...	...	...	2	...	...	...	...	...	11
6	2	5	2	15	...	...	1	...	1	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
2	...	3	2	7	11	1	3	1	16	...	...	...	...	...	23
...	...	1	1	2	2	...	1	...	3	1	...	...	...	1	7
5	6	2	5	18	30	9	18	8	65	17	6	10	5	38	121
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	72
...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	133
73	34	45	25	177	42	33	34	23	132	11	5	9	6	31	393
3	...	3	...	6	1	...	...	...	1	...	...	...	...	...	84
2	...	4	1	7	6	...	2	...	8	5	...	2	3	10	45
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	4	1	...	...	5	98	45	36	29	208	213
6	5	4	2	17	23	15	12	10	60	46	26	25	17	114	195
2	...	1	...	3	1	2	3	...	6	1	1	2	...	4	17
1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	135
5	2	...	...	7	6	3	6	3	18	5	2	5	5	17	55
27	11	13	11	62	48	19	30	15	112	31	8	24	14	77	278
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
11	2	1	1	15	68	36	16	11	131	84	47	35	13	179	523
22	9	18	14	63	36	23	21	14	94	41	13	25	9	88	470
6	1	5	6	18	8	4	6	8	26	4	2	7	9	22	103
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27
10	2	7	6	25	20	15	9	9	53	12	1	5	4	22	217
4	4	3	4	15	2	16	10	2	30	3	3	4	1	11	63
7	2	13	3	25	...	...	1	1	2	...	...	...	...	...	28
2	...	...	1	3	...	1	...	...	1	...	...	...	...	...	4
1	...	1	...	2	...	...	...	...	...	1	...	...	...	1	16
9	2	3	2	16	9	6	8	1	24	3	4	4	1	12	131
...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
...	1	...	...	1	3	...	3	...	6	...	...	...	1	1	8
...	...	...	...	...	1	1	...	...	2	3	...	...	...	3	305
7	3	3	3	16	16	5	7	5	33	11	2	7	6	26	123

TABLE F3.

DEATHS REGISTERED IN SALFORD, FROM ALL CAUSES DURING THE YEAR 1893.

DISEASES.	AGES IN YEARS.																									TOTAL.	1 to 5	5 to 20	20 to 40	40 to 60	60 and upwards
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards									
I. SPEC: FEBRILE, OR ZY- MOTIC DISEASES	417	186	42	33	30	35	17	16	29	19	19	17	9	7	11	8	7	5	3	2	2	...	914	291	68	84	35	19			
II. PARASITIC DISEASES	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	...	...	7	16	...			
III. DIETIC DISEASES	128	77	34	20	12	32	22	30	48	51	56	56	64	59	56	30	38	24	13	4	1	...	855	143	84	211	209	80			
IV. CONSTITUTIONAL DISEASES ..	157	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	...	...	...	...	...			
V. DEVELOPMENTAL DIS: ..	446	161	53	28	25	48	24	52	53	42	67	94	112	118	143	160	183	163	124	48	12	5	372	2	...	...	5	208			
VI. LOCAL DISEASES.....	36	8	7	4	1	9	8	6	4	3	4	6	6	10	4	10	3	5	4	2	...	...	2161	267	124	256	533	535			
VII. DEATHS FROM VIOLENCE.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	140	20	23	17	30	14			
VIII. DEATHS FROM ILL-DEFIN- ED & NOT SPECIFIED CAUSES.	308	20	5	2	1	7	2	3	2	3	3	8	7	7	14	7	9	9	6	3	1	1	428	28	12	16	35	29			
TOTALS.....	1494	454	141	87	69	131	73	107	136	118	150	187	202	204	234	223	253	240	206	113	52	21	4895	751	311	591	863	885			
I.—Zymotic Diseases.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...			
I. MIASMATIC DISEASES.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...			
Sm: Pox { Vaccinated	4	1	...	1	...	...	1	...	2	1	2	2	...	...	1	1	...	...	...	...	...	...	10	...	...	...	...	...			
Unvaccinated	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...			
No Statement	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...			
Measles	19	34	12	14	11	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	91	...	...	...	...	...			
Scarlet Fever	...	12	5	5	7	7	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39	...	...	...	...	...			
Typhus Fever	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...			
Whooping Cough	34	36	12	5	4	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	98	...	...	...	...	...			
Diphtheria	5	13	7	4	5	9	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	47	...	...	...	...	...			
Simp: Contd: Fever	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...			
Enteric Fever	...	2	1	1	1	7	10	13	17	12	11	9	6	1	3	...	2	...	...	...	...	...	96	...	...	...	...	...			
Miasm: Dis: (other).....	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...			
2. DIARRHOEAL DISEASES.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Simp: Cholera	1	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	2	...	...	...	...	...	6	...	...	...	...	...			
Diarrhoea, Dysentery	322	84	5	2	2	3	...	...	3	...	...	1	...	2	5	5	3	4	3	1	2	...	447	93	3	4	12	13			
3. MALARIAL DISEASES.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Remittent Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Ague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
4. ZOÖGENOUS DISEASES.																												
Cow Pox, Effects of Vaccin: ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hydroph: Gland: Splenic Fev: ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. VENEREAL DISEASES.																												
Syphilis	24	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	25	...	...	...	1	...
Gonorrhœa, Str: Ureth:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. SEPTIC DISEASES.																												
Erysipelas	3	...	...	...	...	...	...	...	1	...	2	...	1	1	...	1	1	1	...	1	...	...	11	...	3	3	2	...
Pyæmia Septicæmia	4	2	...	...	...	...	1	...	1	1	...	...	1	1	...	1	...	...	...	...	...	11	...	2	1	2	2	...
Puerperal Fever	1	...	...	...	...	...	...	...	4	5	2	4	1	...	...	...	...	...	...	...	...	16	...	...	15	1	...	...
II.—Parasitic Diseases.																												
Veg: Par: D: (Thrush)	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
An: Par: D: Wrm: Hydtd: ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—Dietic Diseases.																												
Starv: Want Breast Milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scurvy	...	...	...	...	...	...	...	...	...	...	...	6	4	3	5	4	...	...	...	...	...	...	23	...	...	7	16	...
Chr: Alcoholism	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Delir: Trem:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV.—Constitutional Diseases.																												
Rheum: Fev: Rheum: Heart ..	...	...	...	...	...	...	2	...	1	1	1	...	1	1	1	...	...	1	...	...	...	7	...	...	1	2	3	1
Rheum: Chronic	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	2	2	2	...	...	12	...	...	2	...	4	6
Gout	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	1	6	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...
Cancer, Malignant Dis:	...	...	...	...	...	...	...	...	3	1	1	13	11	17	18	19	13	12	9	3	1	121	...	...	18	65	38	
Tabes Mesenterica	50	12	2	4	...	1	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	72	...	...	4	...	...	...
Tuberc: Mening: Hydroceph: ..	42	30	22	12	5	18	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	133	...	...	21	1	...	...
Phthisis	2	1	2	1	4	9	8	26	40	44	53	40	48	38	35	11	20	8	2	1	...	393	...	...	43	177	132	31
Tuberc: Dis: Scrofula	32	28	6	1	2	4	3	1	1	1	2	2	1	1	...	...	...	...	...	...	...	84	...	...	8	6	1	...
Purpura, Hæmor: Diathesis ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...
Anæmia, Chlorosis, Leucocy: ..	1	...	...	...	1	...	1	1	1	1	1	1	...	...	...	...	1	...	...	...	...	8	...	...	2	3	1	...
Diabetes Mellitus	...	...	...	...	...	...	2	...	1	2	...	...	1	1	1	...	2	1	...	...	...	11	...	...	2	3	3	...
Constitutional Dis: (other) ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	1	1	...	...
V.—Developmental Diseases.																												
Premature Birth	143	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143	...	...	...	...	...	...
Atelectasis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Malform: Congen: Defects ..	13	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...
Old Age	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	13	34	56	54	36	15	...	...	...	...	5208	29

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
5. Dis: OF DIGESTIVE SYSTEM.																												
Teething	19	8																					27	8				
Sore Throat (Quinsy)	11	1	2			1				1		1	1	4	1				1				24	3	1	2	6	1
Stomach (Diseases of)	59	8	4	1		2					1	3		2				2				82	13	2	4	2	2	
Enteritis	2					1		2	1	1		1	3	2	3	4	1	3	3	1		28		3	3	12	8	
Intestine (Obst: Dis: of)	3	1	2		1	4	3	5	2	2	4	3	4			2						36	4	12	11	6		
Peritonitis																												
Ascites																												
Liver (Cirrhosis of)									1	2	6	3	7	6	5	4	1					35			3	22	10	
Jaundice, Liver Dis: (other)	3					1			1	1		1	2	2								11		1	2	5		
Digest: Syst: (other Dis: of)																		1				1						1
6. Dis: OF LYMPHATIC SYSTEM.																												
Lymph: Spleen Dis:																												
7. Dis: OF GLAND-LIKE ORG: OF UNCERTAIN USE.																												
Bronchocele, Addison's Dis:									1														1			1		
8. Dis: OF URINARY SYSTEM.																												
Nephritis		1		1	1		1	1	1					1			1	2					9	3	1	1	1	3
Bright's Dis: Albuminuria							1	1	3	1	3	5	7	5	5	4	2	1	1	1		40		2	2	12	21	5
Bladder, Prost: (Dis: of)					1								1									2	1		1			
Urinary Org: (Dis: of)										2	2		1	3		3	3					12			2	7	3	
9. Dis: OF REPRODUCTIVE SYS:																												
A. Organs of Generation.																												
Male Organs																												
Female Organs									1	1	1	1			1							4				3	1	
B. of Parturition.																												
Abortion, Miscarriage																												
Puerperal Convulsions																												
Plac: Præv: Flooding																												
Childbirth (other Accid: of)								1	4	5	6	10	2									28			1	25	2	
10. Dis: OF BONES & JOINTS.																												
Caries, Necrosis		1	1					3				1							1			7		2	3	1	1	1
Arthr: Ost: Periostitis																												
Bone, Joint, (Diseases of)								2														2						
11. Dis: OF INTEGUMENT: SYS:																												
Carbuncle, Phleg: Cellulitis																												
Integ: Diseases (other)																												

TABLE F3.—(Continued.)

DISEASES.	AGES IN YEARS.																							TOTAL.	1 to 5	5 to 20	20 to 40	40 to 60	60 and upwards.
	AGES IN YEARS.																												
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards.							
VII.—Deaths from Violence.																													
1. ACCIDENT OR NEGLIGENCE.																													
Fract: and Contusions	1	2			1	3	3	3	1	3	3	2	5	2	2	5	2	3	2	2									
Gunshot Wounds																													
Cut, Stab																													
Burn, Scald		4	6	4		5	1	2			1	1	1				1	1			1	2	2						
Poison		1							2																				
Drowning.....		1	1			1	4	1						1															
Suffocation	35								1			2	1			2													
Otherwise.....											1								1				1						
2. HOMICIDE.																													
Manslaughter																													
Murder																			1				1						
3. SUICIDE.																													
Gunshot Wound												1																	
Cut, Stab																													
Poison													1			1						2	1						
Drowning																		1											
Hanging														3	1							4							
Otherwise																													
4. EXECUTION.																													
Hanging																													
VIII.—Deaths from Ill-defined and not specified causes.																													
Dropsy																													
Atrophy, Debility	275	20	3	1		1						1		1				2	1			2	3						
Mortification														1					2	1			5						
Tumour	1					2	1	1										1	1			2	2						
Abscess.....	2						1	1										1					2						
Hæmorrhage																													
Sudden Death.....	11		1	1	1				1	2	1	5	3	8	1							1	2						
Found Dead in Bed	13								1	1	2	1	1	4	4	5	4					22	8						
Not Specified, Ill-defined	6								1	1	1	1	1	4	4		3					5	1						

SUMMARY OF TABLE F3, 1892 AND 1893.

	No. of Deaths. 1892.	No. of Deaths. 1893.
I.—Specific Febrile, or Zymotic Diseases:		
1. Ordinary Zymotic Diseases	718	396
2. Diarrhœal Diseases	198	453
3. Malarial	...	...
4. Zoogenous	...	...
5. Venereal	19	25
6. Septic	41	38
II.—Parasitic Diseases	6	2
III.—Dietic Diseases.....	14	23
IV.—Constitutional Diseases	848	885
V.—Developmental Diseases	330	372
VI.—Local Diseases :		
1. Diseases of Nervous System.....	399	402
2. Diseases of Organs of Special Sense	8	6
3. Diseases of Circulatory System	242	278
4. Diseases of Respiratory System	1242	1126
5. Diseases of Digestive System	241	244
6. Diseases of Lymphatic System	2	...
7. Diseases of Gland-like Organs of uncertain use	...	1
8. Diseases of Urinary System.....	79	63
9. Diseases of Reproductive System :		
(a) Diseases of Organs of Generation	1	4
(b) Diseases of Parturition	24	28
10. Diseases of Bones and Joints	17	9
11. Diseases of Integumentary System.....	...	...
VII.—Violence :		
1. Accident or Negligence.....	132	131
2. Homicide	1	1
3. Suicide	19	8
VIII.—Ill-defined and not specified causes	374	400
TOTAL	4955	4895

Mortality from
Special Diseases
and groups of
diseases

Mortality from Special Diseases.—Diminution and Excess.—The following table shows the greater or less fatality of diseases in 1893, as compared with their simple decennial average number in the Borough :—

Cause of Death.	Diminution in 1893.	Excess in 1893.
Small-pox	—	21
Measles	78	—
Scarlet fever	75	—
Typhus fever.....	2	—
Whooping cough	41	—
Diphtheria.....	23	—
Ill-defined fever... ..	2	—
Enteric fever.....	—	18
Diarrhoeal diseases	—	179
Phthisis and other tuberc: diseases.	13	—
Premature birth	—	21
Brain and nervous diseases	105	—
Heart diseases	—	46
Respiratory diseases.....	13	—
Urinary diseases	16	—
Atrophy and other ill-defined causes	—	109
All other causes	—	81
	368	459
Balance of excess in 1893 ...		91

This excess 91 deaths for the year 1893, compares favourably with the excess of 236 in 1892, 324 in 1891, and 340 in 1890.

Zymotic
Mortality

Mortality from certain Zymotic Diseases.—The following tables show the annual rates of mortality, per 1,000 of population, in respect of certain zymotic diseases in Salford, London, the 33 great English towns, and England and Wales. In previous years, down to 1892, the comparison was made with the 28 great English towns, but since the Registrar-General has, for further comparison, added five other large towns, it has become necessary to enlarge the tables until a clear period of five years comparison with the 33 towns has been established. For this purpose, the mortality-rates for the past five years belonging to the 28 great English towns are retained, and the rates for the 33 towns for two years are given in addition.

SCARLET FEVER MORTALITY. RATES PER 1,000 OF THE POPULATION.

Zymotic
Mortality

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
England and Wales...	0·22	0·23	0·23	0·17	0·19	0·21	0·23
28 Great English Towns	0·29	0·30	0·31	0·18	0·22	0·26	0·22
33 " "					0·25		0·29
London	0·28	0·18	0·19	0·14	0·28	0·21	0·37
Salford	0·82	0·52	0·95	0·18	0·40	0·57	0·19

DIPHTHERIA MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
England and Wales ...	0·17	0·19	0·18	0·17	0·20	0·18	0·30
28 Great English Towns	0·21	0·26	0·24	0·21	0·16	0·22	0·19
33 " "					0·68		0·43
London	0·30	0·37	0·31	0·32	0·44	0·35	0·76
Salford	0·32	1·06	1·05	0·39	0·26	0·62	0·23

WHOOPIING COUGH MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
England and Wales ...	0·40	0·40	0·45	0·44	0·43	0·42	0·33
28 Great English Towns	0·58	0·48	0·59	0·63	0·55	0·57	0·41
33 " "					0·57		0·48
London	0·70	0·40	0·73	0·67	0·58	0·62	0·54
Salford	1·15	0·30	0·93	0·91	0·96	0·85	0·48

MEASLES MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
England and Wales ...	0·33	0·49	0·42	0·42	0·45	0·42	0·36
28 Great English Towns	0·47	0·67	0·63	0·51	0·57	0·57	0·51
33 " "					0·68		0·44
London	0·56	0·53	0·73	0·42	0·80	0·61	0·39
Salford	0·69	1·13	0·52	0·65	1·52	0·90	0·45

DIARRHOEA MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
England and Wales ...	0·43	0·61	0·56	0·45	0·48	0·51	0·46
28 Great English Towns	0·60	0·82	0·77	0·65	0·75	0·71	1·45
33 " "					0·71		1·22
London	0·52	0·62	0·61	0·58	0·59	0·58	1·09
Salford	0·96	1·75	1·30	0·89	0·98	1·18	2·20

Zymotic
MortalityTYPHUS FEVER MORTALITY. RATES PER 1,000 OF THE
POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
London	0'00	0'00	0'00	0'00	0'00	0'00	0'00
Salford	0 04	0'01	0'02	0'00	0'00	0'01	0'01

ENTERIC FEVER MORTALITY. RATES PER 1,000 OF THE
POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
London	0'16	0'12	0'13	0'13	0'10	0'13	0'16
Salford	0'47	0'58	0'42	0'38	0'39	0'45	0'47

TOTAL CONTINUED FEVER MORTALITY. RATES PER 1,000
OF THE POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
England and Wales ...	0'18	0'18	0'18	0'18	0'15	0'17	0'23
28 Great English Towns	0'20	0'20	0'19	0'20	0'18	0'19	0'29
33 " "					0'15		0'24
London	0'17	0'14	0'14	0'14	0'11	0'14	0'16
Salford	0'52	0'60	0'44	0'38	0'41	0'47	0'49

Uncertified Deaths.—Of the 4,895 deaths which occurred in the year 1893, at all ages and from all causes, 4,475 were certified by registered medical practitioners, 258 were certified by the Coroner, and 162 deaths were uncertified by either medical practitioners or the Coroner. The uncertified deaths were 13 more than in the preceding year, but 17 fewer than in the year 1891, and fewer by 15 than the average for the preceding ten years. The proportion of uncertified deaths to the total deaths was 3·3 per cent., against 3·8 per cent. the average percentage of the previous ten years. There is thus some improvement in respect of the certification of deaths, on the preceding decennium; but none the less, it is most desirable that proper certification of all deaths should be enforced by the legislature, and provision made for the post-mortem examination of all cases which have not been certified for either by the Coroner on information which may be sufficient for him, or by registered medical practitioners who were in attendance during life.

TABLE G.

CERTIFICATION OF THE CAUSES OF DEATH IN THE BOROUGH OF
SALFORD, AND ITS FOUR REGISTRATION SUB-DISTRICTS,
IN THE YEAR 1893.

	Total Deaths.	Certified by		Not Certified.	Proportion per cent. of Total Deaths.		
		Registered Medical Practitioners.	Coroner.		Certified by		Not Certified.
					Registered Medical Practitioners.	Coroner.	
Borough	4895	4475	258	162	91·4	5·3	3·3
Regent Road District	2026	1858	95	73	91·7	4·7	3·6
Greengate	928	808	86	34	87·1	9·3	3·6
Pendleton	1232	1136	55	41	92·2	4·5	3·3
Broughton	709	673	22	14	94·9	3·1	2·0

CORRESPONDING DATA FOR THE TEN YEARS 1883-92.

Borough	47025	43027	2223	1775	91·5	4·7	3·8
Regent Road District	19951	18260	914	777	91·5	4·6	3·9
Greengate	9338	8335	610	393	89·3	6·5	4·2
Pendleton	11155	10235	485	435	91·8	4·3	3·9
Broughton	6581	6197	214	170	94·1	3·3	2·6

**TABLE OF DEATHS DURING THE YEAR 1893, IN THE URBAN SANITARY
AND SHOWING ALSO THE POPULATION OF SUCH LOCALITIES,**

Localities.	Population at all ages.		Registered Births.	Mortality from all causes at subjoined ages.						
	Census, 1891	Estimated to the middle of 1893.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
Total for Borough, exclu- sive of Public Institutions	196397	203427	6963	4205	1445	682	157	187	1234	500
Deaths in Salford Institutions.	Union Infirmary	Beds. 634 Beds. ...	...	407	25	13	2	16	233	118
	Workhouse	908 ...	84	13	2	1	...	...	4	6
	Ladywell Sanatorium ...	60 ...	...	88	...	23	20	22	23	...
	Wilton Hospital and Mode Wheel Hos- pital... ..	... ...	...	24	6	3	1	4	10	...
	Royal Hospital and Dispensary .....	... ...	...	116	3	16	9	12	64	12

The subjoined numbers have also to be taken into account

Deaths occurring outside Salford among persons belonging thereto.		Beds.	Beds.								
	Children's Hospital, Pendlebury	160	160	...	38	10	14	14	...	...	...
	Manchester Royal Infirmary	315	315	...	26	...	2	1	7	14	2
	Monsal Hospital.....	192	192	...	...	...	...	...	...	...	..
	St. Mary's Hospital...	...	...	...	9	4	...	...	2	3	...
	Ear Hospital	...	...	...	1	...	1	...	...	...	...
Deaths occurring in Salford among persons not belong- ing to the town					32	1	4	...	7	14	6

The subjoined numbers are the **Corrected Deaths** in the

Borough of Salford	Pop. 1892	Pop. 1893									
Borough of Salford	201058	203427	7047	4895	1494	751	204	243	1571	632	
Registration Sub-Districts.	Regent Road	80405	81514	2882	2026	625	279	97	114	639	272
	Greengate	30707	30707	1155	928	283	137	30	30	330	118
	Pendleton	51427	52140	1817	1232	363	239	53	53	381	143
	Broughton	38522	39066	1193	709	223	96	24	46	221	99

DISTRICT OF SALFORD, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES,
AND THE BIRTHS THEREIN DURING THE YEAR.

Mortality from subjoined causes, distinguishing deaths of children
under five years of age.

	Small-pox.	Measles.	Scarlet-fever.	Diphtheria.	Croup.	Whooping Cough	Typhus.	Enteric or Typhoid	Other or Doubtful	Diarrhea and Dysentery.	Engl. Cholera.	Rheumatic Fev.	Erysipelas	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	Other Diseases.
Under 5...	..	88	16	28	25	91	..	4	..	406	2	..	3	5	..	..	10	370	4	43	1032
5 upwards	..	1	4	10	5	7	..	42	1	28	4	6	6	3	15	..	312	513	221	57	843
Under 5...	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	8	..	..	24
5 upwards	..	..	..	..	..	..	..	1	..	4	..	1	..	1	..	..	67	90	35	1	169
Under 5...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2
5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	6
Under 5...	..	1	14	7	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
5 upwards	..	..	6	2	..	..	2	49	..	..	..	..	2	..	1	..	..	2	..	1	..
Under 5...	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
5 upwards	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under 5...	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	11	5
5 upwards	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	4	8	13	31	38

in judging of the mortality of the Sanitary District.

Under 5...	..	1	1	..	..	..	..	..	..	4	..	..	..	1	..	..	..	4	..	..	13
5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	11
Under 5...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	7	4	12
Under 5...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under 5...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Under 5...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under 5...	..	..	2	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
5 upwards	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	3	3	2	10	7

Borough, and in the four Sub-Registration Districts thereof.

Under 5...	7	90	29	34	25	91	..	5	..	415	2	..	3	6	..	..	10	385	4	56	1083
5 upwards	15	1	10	13	5	7	2	91	1	32	4	7	8	5	16	..	383	615	274	84	1077
Under 5...	2	29	11	14	9	26	..	1	..	166	..	..	1	2	..	..	6	158	2	28	449
5 upwards	7	..	2	4	3	2	..	45	..	11	1	3	2	4	6	..	147	287	114	36	448
Under 5...	3	11	3	5	7	12	..	2	..	94	..	..	1	1	..	..	..	78	..	16	187
5 upwards	4	..	..	2	2	3	..	8	..	8	1	..	4	..	2	..	81	137	42	17	197
Under 5...	1	44	8	7	5	44	..	1	..	91	2	..	..	2	..	..	2	100	2	9	284
5 upwards	3	1	7	5	..	1	2	23	..	6	1	2	2	..	6	..	95	126	73	23	254
Under 5...	1	6	7	8	4	9	..	1	..	64	..	..	1	1	..	..	2	49	..	3	163
5 upwards	1	..	1	2	..	1	..	15	1	7	1	2	..	1	2	..	60	65	45	8	178

YEAR 1893.

METEOROLOGY, AND REGISTERED DEATHS FROM ALL CAUSES, AND FROM CERTAIN
PREVALENT DISEASES IN EACH WEEK OF THE YEAR.

Week.	Temperature of the Air.			Air Pres- sure.	Horizontal Movement of Air in Miles p. hour.	Mean Humidity. Complete Saturation =100	Rainfall in Inches.	Deaths registered from										
Date of ending.	Highest during the Week.	Lowest during the Week.	Mean Temperature.	Extreme range of Barometric changes.				All Causes.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Diarrhoea.	Respiratory Diseases.	Phthisis.
1893.	°	°	°															
Jan. 7	36.0	19.0	29.5	0.475	1.2	89	.240	158	...	8	...	2	10	...	2	1	56	10
14	42.6	32.2	38.0	0.694	1.3	90	...	127	...	4	2	4	2	...	..	2	41	7
21	47.1	29.0	39.5	0.627	2.4	93	.265	95	...	2	2	3	...	...	1	2	23	10
28	50.2	34.0	42.2	0.631	2.8	97	.235	100	...	4	...	3	3	...	4	...	33	8
Feb. 4	54.1	35.1	45.3	0.932	2.5	91	.765	84	...	3	1	..	2	...	...	...	24	7
11	51.7	32.6	41.9	1.181	4.3	89	1.075	69	2	1	1	1	5	...	...	1	23	7
18	53.5	35.0	43.8	0.848	3.6	87	.870	71	2	...	1	2	2	...	1	3	14	7
25	57.8	31.0	39.7	0.895	2.3	88	.290	69	1	...	1	2	...	...	1	2	14	5
Mar. 4	59.0	29.8	43.0	1.458	4.0	87	.765	89	1	1	1	...	6	...	2	1	16	6
11	61.8	42.0	46.4	0.206	5.7	89	.025	83	...	4	3	...	5	...	1	1	20	10
18	71.0	38.0	44.1	0.589	2.7	74	.255	71	...	...	2	1	3	...	...	1	16	7
25	68.1	34.2	47.6	0.188	0.6	79	...	105	...	1	...	1	1	...	2	3	30	9
April. 1	65.4	38.0	49.9	0.524	1.4	76	.180	108	1	1	2	..	1	...	...	...	34	14
8	69.7	34.8	51.1	0.341	1.0	65	...	87	5	...	2	...	3	...	1	...	22	6
15	63.7	38.0	47.2	0.299	1.4	71	...	93	...	3	...	...	2	...	...	1	19	10
22	78.3	40.8	57.3	0.351	1.2	60	.300	93	...	4	...	2	3	...	1	1	26	9
29	76.6	43.5	56.9	0.253	1.3	60	.040	74	3	4	...	...	1	...	...	2	19	6
May 6	74.0	43.2	54.9	0.528	1.8	67	.160	79	...	3	...	...	4	...	1	2	24	5
13	76.8	44.2	56.1	0.286	1.8	61	...	84	1	2	...	...	3	...	...	...	21	9
20	74.8	49.8	57.3	0.494	2.2	80	1.220	86	...	3	...	2	5	...	1	3	22	9
27	67.3	44.2	55.3	0.586	1.7	73	.225	75	1	1	...	2	1	...	...	2	17	7
June 3	70.2	46.2	55.7	0.338	1.5	70	.130	88	...	2	...	1	1	...	1	3	17	14
10	75.2	49.9	59.4	0.240	1.3	65	.190	74	...	1	...	...	...	...	2	...	12	14
17	84.1	50.7	63.8	0.388	1.5	60	...	93	1	...	...	1	2	...	2	10	26	7
24	85.4	50.2	60.5	1.167	2.1	72	.365	105	...	2	1	...	...	...	3	17	26	1
July 1	80.8	50.8	61.7	0.649	2.7	73	.675	104	...	1	...	1	...	...	...	26	16	3
8	87.0	55.2	63.7	0.368	2.0	56	.130	102	...	3	...	...	1	...	...	22	13	9
15	71.8	52.9	60.3	0.404	1.8	72	1.715	136	...	3	2	1	4	...	2	35	17	7
22	70.4	52.0	60.5	0.498	2.7	71	.320	131	...	3	1	1	...	...	2	47	10	9
29	71.1	53.8	60.3	0.478	2.2	70	1.095	100	...	1	2	...	3	...	3	22	13	10
Aug. 5	69.8	52.3	59.6	0.347	2.6	76	.850	91	1	3	...	1	...	...	3	20	11	5
12	83.5	49.5	68.5	0.251	1.9	63	.210	110	3	1	2	...	1	...	5	26	8	8
19	86.8	57.6	70.6	0.424	1.5	71	.088	87	...	1	2	...	1	...	3	18	11	5
26	72.4	52.6	61.5	1.111	3.5	72	.960	100	...	...	1	1	3	...	1	35	5	7
Sep. 2	70.3	49.2	59.8	0.371	1.2	70	.080	75	...	1	1	1	...	...	2	25	10	5
9	75.8	47.8	61.0	0.691	1.7	73	.960	79	...	...	2	1	...	2	3	22	4	7
16	69.5	43.2	56.9	0.453	1.7	67	.270	91	...	...	...	1	...	...	2	20	12	13
23	63.2	40.8	53.0	0.410	2.5	74	1.125	82	...	...	...	...	2	...	2	16	7	8
30	62.2	42.6	53.8	0.677	2.7	74	.960	83	...	...	2	...	2	...	4	18	2	3
Oct. 7	62.4	42.4	50.8	0.555	1.4	77	.780	84	...	1	...	...	1	...	3	11	17	7
14	63.8	42.2	52.3	0.499	2.2	79	.690	96	...	1	...	2	...	...	5	6	18	6
21	65.2	44.9	55.0	0.520	1.9	83	...	102	...	...	...	...	...	...	6	4	16	12
28	58.8	42.0	50.3	0.720	2.9	82	.715	91	...	...	...	1	1	...	2	7	28	8
Nov. 4	57.1	30.0	42.4	0.547	2.2	92	.570	94	...	1	1	...	...	...	...	2	26	8
11	51.8	30.8	41.5	0.664	1.4	90	.030	96	...	...	...	2	...	...	3	6	28	4
18	56.3	34.7	44.1	1.495	3.3	88	.190	102	..	1	1	3	2	...	2	2	31	11
25	51.1	29.8	40.0	0.682	2.8	88	1.230	119	...	1	...	3	...	...	5	2	57	6
Dec. 2	55.2	44.0	42.1	0.739	2.6	91	.160	106	...	...	...	1	2	...	3	...	39	8
9	51.1	25.0	43.3	1.248	2.6	92	.910	110	...	2	...	1	3	...	5	1	35	7
16	53.8	32.2	43.4	1.125	2.6	93	.830	77	...	3	3	...	3	...	3	...	27	4
23	50.8	37.0	43.2	1.427	3.4	92	.620	95	...	5	1	...	3	...	1	...	26	6
30	50.8	35.5	43.4	0.706	1.6	92	.150	83	...	5	1	1	1	...	2	1	19	5

III.

RECORD OF INFECTIOUS DISEASES AND
MEASURES TAKEN TO PREVENT
THEIR SPREAD.

RECORD OF INFECTIOUS DISEASES
AND MEASURES TAKEN TO PREVENT
THEIR SPREAD.

Notification of Infectious Diseases.—The total number of infectious diseases notified under the Infectious Diseases Notification Act, during the year 1893, was 2,051, as against 1,572 in 1892, 1,164 in 1891, and 2,177 in 1890.

The highest and lowest weekly incidences, were as follows :—

1893.		Fresh Cases.
Week.		
38th.....	Highest number	64
39th.....	„ „	63
23rd.....	Lowest „	20

Excluding as in other years, membranous croup and erysipelas from the list of notifiable diseases for the purpose of comparison with years preceding 1890, the total number of notified cases is reduced to 1,850 cases in 1893, as against 1,459 in 1892, 1,101 in 1891, and 2,068 in 1890.

The following three tables show, firstly, the total numbers of cases notified in each week of the year ; secondly, the total numbers of cases of notifiable diseases, *exclusive of membranous croup and erysipelas*, during each year since notification came into force within the Borough, together with the yearly rates per 1,000 of population ; and thirdly, the mean weekly incidence of *these particular zymotic diseases*.

CASES NOTIFIED DURING 1893.

Weeks.	Total.	Small-pox.	Scarlet Fever.	Diphtheria.	Membranous Group.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.
1	31	...	21	2	1	5	...	...	...	2
2	40	2	18	7	1	7	...	...	1	4
3	40	3	25	4	...	5	...	...	2	1
4	52	9	19	6	4	12	...	...	...	2
5	42	8	15	11	3	3	...	1	..	1
6	44	9	24	5	...	2	...	...	1	3
7	46	10	13	14	2	5	...	...	2	...
8	30	7	14	1	...	5	...	...	...	3
9	41	5	21	4	2	5	...	...	1	3
10	36	7	19	2	2	6	...	...	...	...
11	37	5	15	5	2	8	...	...	1	1
12	41	5	23	5	1	5	...	...	...	2
13	27	9	9	3	1	4	...	1	...	...
14	27	7	12	1	1	5	...	...	...	1
15	29	8	9	4	3	3	...	...	2	...
16	31	12	8	5	1	3	...	...	1	1
17	28	6	11	5	1	2	...	...	...	3
18	27	5	13	2	...	4	1	...	1	1
19	29	5	10	2	...	8	1	1	...	2
20	29	3	10	5	1	7	...	...	...	3
21	26	1	14	5	...	4	...	...	...	2
22	33	5	19	1	1	4	...	...	...	3
23	20	...	11	4	...	5	...	...	...	...
24	37	3	16	6	1	8	...	...	2	1
25	30	2	19	2	...	4	...	1	...	2
26	35	2	20	7	1	4	...	...	...	1
27	36	4	18	5	1	5	...	...	1	2
28	44	2	27	2	...	8	...	...	...	5
29	52	8	19	4	2	15	...	...	1	3
30	30	3	13	...	2	9	...	...	1	2
31	61	6	16	6	1	30	...	...	1	1
32	47	...	25	...	...	20	...	...	...	2
33	40	6	18	3	...	8	...	...	2	3
34	30	...	12	5	1	7	...	1	1	3
35	55	1	18	9	...	21	2	1	1	2
36	58	...	19	2	...	29	1	1	1	5
37	51	...	10	2	1	31	...	...	...	7
38	64	...	22	5	2	32	...	...	...	3
39	63	...	18	2	...	36	...	2	1	4
40	54	...	16	1	2	31	...	...	...	4
41	48	...	23	6	2	13	...	1	...	3
42	41	...	25	3	...	8	...	...	...	5
43	38	...	23	2	1	8	...	...	2	2
44	50	...	20	4	1	19	...	...	...	6
45	41	...	12	3	1	15	...	...	...	10
46	52	...	12	5	...	25	...	1	1	8
47	39	...	12	6	...	17	...	1	...	3
48	46	...	16	3	3	15	...	...	...	9
49	28	...	11	3	1	9	...	...	1	3
50	33	...	18	4	...	9	...	...	...	2
51	28	...	13	2	1	5	...	...	2	5
52	34	...	21	2	3	5	...	...	...	3
	2051	168	865	207	54	563	5	12	30	147

Year.	No. of Cases.	Rates per 1,000 of population.	Notification of Disease
1883.....	1,195	or 6.5	
1884.....	1,694	or 9.2	
1885.....	960	or 5.1	
1886.....	1,902	or 10.1	
1887.....	1,889	or 9.9	
1888.....	1,971	or 10.2	
1889.....	2,476	or 12.7	
1890.....	2,068	or 10.5	
1891.....	1,101	or 5.5	
1892.....	1,459	or 7.2	
Mean for 10 years 1883-1892	1,671	or 8.7	
1893.....	1,850	or 9.1	

The mean weekly incidence of fresh cases in 1883 was					23
„	„	„	„	„	1884 „ 33
„	„	„	„	„	1885 „ 18
„	„	„	„	„	1886 „ 36
„	„	„	„	„	1887 „ 36
„	„	„	„	„	1888 „ 35
„	„	„	„	„	1889 „ 47
„	„	„	„	„	1890 „ 39
„	„	„	„	„	1891 „ 21
„	„	„	„	„	1892 „ 28
„	„	„	„	„	1893 „ 39

Among the chief causes of the increased number of cases was the occurrence in the borough of a serious epidemic of small-pox, which I have lately dealt with in a special report to the Health Committee. Of the 173 cases of that epidemic, 168 occurred during the year 1893, and as this disease has for some years past not been a source of serious concern its onset has necessarily helped to swell the figures for the year. Curiously enough the total number of notifications for scarlet-fever are the same as for the year 1892; but the number of cases of diphtheria are nearly the same for the two years, while the notifications of membranous croup are just double for the year 1893, what they were in 1892. There was too a notable increase in the number of cases of enteric fever, and a remarkable increase in the number of cases of erysipelas.

The following table shows the total numbers of cases in each of the four quarters of the year from all notifiable diseases.

CASES NOTIFIED DURING THE YEAR 1893.

Quarters.	Total Cases.	Small-pox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.
1st	507	79	236	69	19	72	...	2	8	22
2nd	381	59	172	49	10	61	2	2	6	20
3rd	631	30	235	45	10	251	3	5	10	42
4th	532	...	222	44	15	179	...	3	6	63
Year	2051	168	865	207	54	563	5	12	30	147

Hospital Isolation

Amount of Hospital Isolation of Infectious Diseases. —

Of the 2,051 cases notified, 1,013 or 49·4 per cent. were isolated by the Corporation during the year ending December 31st, 1893, as against 713, or 45·35 per cent. in the year 1892, as against 533, or 45·7 per cent. in the year 1891, and as against 850, or 39·0 per cent. in the year 1890. It will also be seen in the following table that the number of cases sent to hospital, under mistaken diagnosis, was less than in the year 1892, when 31 such cases were admitted, or 4·3 per cent. of the total admissions into hospital.

District.	Total number of cases notified.	Total number of notified cases isolated in Hospitals.	Percentage of cases isolated in Hospital.	Number of cases sent to Hospital under mistaken diagnosis.	Percentage of mistaken cases to total cases isolated.
Regent Road	890	476	53·5	7	1·5
Greengate	213	114	53·5	3	2·6
Pendleton	586	258	44·0	5	1·9
Broughton	362	165	45·6	3	1·8
Borough	2051	1013	49·4	18	1·8

There were thus exactly 300 more cases isolated at the expense of the Corporation than in the year 1892, 480 more than in the year 1891, and 343 more than in the year 1890. Comparing the two years 1893 and 1892, it thus appears that, excluding 165 cases of small-pox isolated by the Corporation in the temporary small-pox hospital at Mode Wheel. 135 more cases were admitted into the Ladywell Sanatorium during 1893 than had been isolated in 1892. This result must be considered as satisfactorily emphasising the appreciation of the new hospital by the inhabitants of the borough. But, further, it is to be noted that the rate of isolations reached nearly 50 per cent. of the whole number of notified cases, a rate which has not been reached since the year 1887.

Disinfection of Premises.—There were 1,840 houses disinfected and cleansed, after the occurrence in them of cases of infectious sickness, by the Health Department, during the year. Disinfection of Premises.

The following table shows the distribution of the houses thus dealt with.

Houses.	Regent Road.	Greengate.	Pendleton.	Broughton.	Boro.
Stoved with Sulphur, and paper stripped off walls	473	127	309	184	1093
Stoved with Sulphur only	346	87	172	142	747
Totals.....	819	214	481	326	1840

The total number of houses disinfected by the staff of disinfectors, free of charge, was 454 more than in the year 1892, and 795 more than in the year 1891. But besides these, there were 17 houses disinfected at the request of medical practitioners in consequence of the existence in them of acute cases of phthisis. Thus, the total number of houses disinfected at the expense of the Corporation was 1,857.

Amount of Disinfection of Bedding and Clothing by the Corporation.—There were 1,054 parcels of infected bedding and clothing disinfected by means of high pressure steam, at the Sanitary station attached to the Ladywell Sanatorium, as against 694 parcels in 1892. The distribution of the parcels in 1893 to Disinfection of Bedding, &c.

the districts to which they belonged is as follows :—Regent Road, 579 ; Greengate, 116 ; Pendleton, 162 ; Broughton 197.

There were besides 62 lots of bedding and clothing destroyed in the incinerator at the Sanitary station, the district distribution of which is as follows :—Regent Road, 24 ; Greengate, 30 ; Pendleton, 5 ; Broughton 3.

Protection of
Schools

Preventive Measures in Public Elementary Schools.

There was no valid reason for the closure of any one of the schools in the Borough during the year, on account of the prevalence of infectious diseases, but at the request of the Rector of the Church of the Ascension, the two schools belonging to that church were disinfected during the summer holidays.

Disease
Prevalence

Prevalence and Distribution of Zymotic Diseases.—

The 2,051 cases of notifiable zymotic diseases in the Borough during the year, were distributed to the four registration districts as shewn in the succeeding tables, and as regards the three principal diseases—scarlet-fever, diphtheria and enteric-fever—as shewn in the three consecutive spot-maps.

Measles and
Whooping Cough

But the notification tables do not show what was the whole amount of infectious sickness throughout the year, such rapidly spreading diseases of childhood as measles and whooping cough not being yet notifiable. Some notion of their amount of prevalence may, however, be gathered from their mortalities which were for measles 91 deaths, and for whooping-cough 98 deaths, as against 306 and 194 respectively in the year 1892. The two tables relating to these diseases show plainly how great is the fatality from them among infants under five years of age.

DEATHS FROM MEASLES IN THE YEAR 1893.

QUARTERS.	AT ALL AGES.					UNDER FIVE YEARS.				
	Borough.	Regent Road.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Road.	Greengate.	Pendleton.	Broughton.
1st	29	10	5	10	4	28	10	5	9	4
2nd	26	2	1	22	1	26	2	1	22	1
3rd	16	5	2	8	1	16	5	2	8	1
4th	20	12	3	5	...	20	12	3	5	...
Year	91	29	11	45	6	90	29	11	44	6

DEATHS FROM WHOOPING COUGH IN THE YEAR 1893.

Disease
Prevalence

QUARTERS.	AT ALL AGES.					UNDER FIVE YEARS.				
	Borough.	Regent Road.	Greengate.	Pendleton.	Broughton.	Borough	Regent Road.	Greengate.	Pendleton.	Broughton.
1st.	40	9	3	22	6	38	9	2	21	6
2nd.	25	7	3	15	...	22	6	1	15	...
3rd.	17	8	2	6	1	16	8	2	5	1
4th.	16	4	7	2	3	15	4	7	2	2
Year	98	28	15	45	10	91	27	12	43	9

TABLE SHOWING THE DISTRICT DISTRIBUTION OF NOTIFIED CASES OF
INFECTIOUS DISEASES DURING 1893.

	Small-pox	Scarlet-fever.	Diphtheria.	Membranous Croup.	Enteric-fever.	Typhus-fever.	Continued-fever.	Puerperal-fever.	Erysipelas.	Total.
Regent Road.....	85	357	75	12	287	...	4	11	59	890
Greengate	26	54	24	24	52	1	2	7	33	213
Pendleton	35	270	61	10	151	4	5	9	41	586
Broughton	22	184	47	8	83	...	1	3	14	362
Borough	168	865	207	54	563	5	12	30	147	2051

Small-Pox.—The epidemic of this disease which commenced in the fourth quarter of the year 1892, continued during the whole of the year 1893, the last case of the epidemic having been reported on September 2nd, 1893. It is gratifying, however, to be able to record that since that date no other isolated

case of small-pox has been notified to the Health Department. I lately reported specially and separately on that epidemic, and have nothing further to record in regard to it; but I have to express the hope that a sufficient permanent small-pox hospital will be established in the Borough before the close of the year 1894.

Scarlet-Fever.

SCARLET-FEVER SICKNESS.—RATES PER 1,000 OF THE POPULATION.

	1888.	1889.	1890.	1891.	1892.	Mean.	1893.
Salford (Borough) ...	5·87	6·60	5·01	2·43	4·31	4·84	4·25
SALFORD DISTRICTS { Regent Road ...	5·05	6·18	4·70	1·64	5·57	4·63	4·38
{ Greengate	4·15	8·81	5·21	2·11	3·16	4·69	1·76
{ Pendleton	6·94	5·40	4·70	3·23	3·25	4·70	5·18
{ Broughton	7·60	7·20	5·91	3·26	3·98	5·59	4·71

Scarlet Fever.—There were 865 cases of this disease during the year 1893, as against the same total number in 1892, as against 482 in the year 1891, and as against 985 in the year 1890. Though the total numbers for 1892 and 1893 were exactly the same, there were notable differences in the incidence of the disease in respect of localities for the two years. Thus, while there was marked diminution in the prevalence of the disease in the Regent Road and Greengate districts of the Borough, there was a considerable increase in the Pendleton district and an increase also in the Broughton district. The increase in the Pendleton district is comprehensible from the fact that there has been, during the past two years, an increase in the number of dwellings in that district, and that, therefore, there has probably been an increase in the number of persons susceptible to scarlet-fever. On the other hand, in the two districts where there is least scope for further building operations for dwelling-houses, there has been a falling off in the numbers of cases of scarlet-fever. While the total amount of scarlet-fever prevalence continues rather too high, it is noticeable that with the exception of the Pendleton district, the sickness rates for 1893 in the Borough and its registration districts was below the mean for the preceding five years 1888-92. Moreover the mean rate of the disease sickness in the Borough has now been on the decline for several years, so that on the whole there are some encouraging signs that the disease is slightly more under control than in past years. Scarlet-fever was least prevalent in the Borough during 1893 in the second quarter of the year, and was at about the same level of prevalence in the other three quarters of the year, the numbers for the four quarters being 236, 172, 235, and 222 respectively. Of the total number of cases 314 or 36·3 per cent. were of children under five years of age, as against 32·8 per cent. in 1892, as against 30·0 per cent. in 1891, and as against 40·2 per cent. in the year 1890.









MAP OF THE COUNTY BOROUGH OF SALFORD

Divided into Registration Sub-districts and Enumeration Districts, shewing the distribution of Enteric Fever in Salford for the year 1893.

The figures indicate the numbers of the Enumeration Districts, thus—160.

The coloured dots indicate the houses where cases occurred.





DIPHTHERIA SICKNESS. RATES PER 1,000 OF THE POPULATION. Diphtheria

		1888.	1889.	1890.	1891.	1892.	Mean.	1893.
Salford (Borough) ...		0·91	3·55	3·53	1·11	1·01	2·02	1·02
SALFORD DISTRICTS:	{ Regent Road ...	0·76	3·15	3·08	0·84	1·15	1·80	0·92
	{ Greengate	0·64	3·87	3·69	1·06	1·23	2·10	0·78
	{ Pendleton	1·13	4·14	5·16	1·44	0·74	2·52	1·17
	{ Broughton	1·16	3·34	2·17	1·32	0·93	1·78	1·20

Diphtheria.—There were 207 cases of diphtheria and 54 of membranous croup notified to the Health Department, as against 204 and 27 respectively in the year 1892, as against 222 cases of diphtheria in 1891, and as against 694 cases in 1890. The disease appears, therefore, to have been nearly stationary in the Borough during a period of three years. But the amount of its recognised prevalence is too high. In fact, the prevalence of the disease in the Borough has never fallen to anything like the level it was at before the occurrence of the great epidemic of the disease in the years 1888, 1889, and 1890, when the number of cases were respectively 176, 691 and 694. Compared with these figures, the rate of prevalence during the past three years are undoubtedly favourable; but it may be remembered that I took special care to utter the warning that a sudden falling off to a low limit in the prevalence of the disease, after such a serious establishment of it in the Borough, could not be looked for. The work, however, which is being done day by day in Salford may be hoped in time to leave its mark on the annual prevalence of diphtheria in the Borough, and to bring about a nearer approach to the figures obtaining before the time of the great epidemic, than has been reached since its occurrence.

The number of notifications show that with the exception of the first quarter of the year, the disease was very evenly maintained throughout 1893, the numbers for the four quarters having been respectively 69, 49, 45 and 44. Of the whole number of cases, 72, or 34·8 per cent. were of children under five years of age, as against 30·4 per cent. in 1892, and 34·2 per cent. in 1891.

Of the cases of membranous croup 37, or 68·5 per cent., were of children under five years of age. If the total number of cases of membranous croup be reckoned with cases of diphtheria, then the number of cases of these two diseases is 261, of which, 109, or 41·7 per cent. occurred in children under five years of age, as against 35·5 per cent. in 1892. While it is proper that cases of membranous croup should be considered in connection with the prevalence of diphtheria, it is not by any means certain that every notification of membranous croup represents an accurate diagnosis, so that some allowance may properly be made on that score. At the same time, the notification of membranous croup must become of increasing value year by year, as an indication of the increased prevalence or otherwise of mild throat affections, which it might

at the time be difficult to class as cases of diphtheria, and so give a better intimation of the likelihood of an increase or decrease in the prevalence of diphtheria itself within the Borough.

Enteric-Fever	ENTERIC-FEVER SICKNESS. RATES PER 1,000 OF THE POPULATION.							
		1888.	1889.	1890.	1891.	1892.	Mean.	1893.
	Salford (Borough) ...	2·97	2·49	1·95	1·90	1·72	2·21	2·77
	SALFORD DISTRICTS. { Regent Road ...	2·84	3·09	2·36	2·36	2·03	2·54	3·52
	{ Greengate	2·51	1·36	1·46	1·30	2·38	1·80	1·37
	{ Pendleton	4·14	3·21	2·16	1·72	1·21	2·49	2·90
	{ Broughton	2·10	1·25	1·20	1·66	1·27	1·50	2·12

Enteric-Fever.—There were 563 cases of this disease notified during the year, as against 347 cases in the year 1892, 378 cases in 1891, and 383 cases in 1890. This is the highest number of cases in any year since 1888, when the number reached 572 cases. The large increase was principally due in 1893, to the occurrence of two sharp localised outbreaks of the disease in the Hightown portion of the Broughton district in the month of September, and in the Weaste portion of the Pendleton district in the month of November. Careful enquiry into both these occurrences disclosed the existence of serious drain defects in connection with the properties implicated. The probable reason for their operating as agents in the dissemination of the disease is that owing to the prolonged drought of the summer, and the consequent scarcity of the water supply, the means for flushing passage drains and sewers were effectually checked. Thus, where defective passage drains existed and no exceptional means of flushing them were in operation, deposits within them were not removed and these enabled further accumulations to take place. In neither case was any other insanitary condition discoverable; no food supply was implicated in the causation or spread of the disease so far as was discoverable, and with the ability to put the large flushing tanks into operation, where the disease was most prevalent, the notifications of enteric-fever speedily became reduced in number.

In my last report, I referred to the decision of the Corporation to institute the work of annually flushing and cleansing the sewers of the Borough, as one of the means for coping with the constant prevalence of enteric-fever in the district. I had hoped that the large moveable flushing tanks, which were procured before the summer of 1893, would have proved of some service; but, as I have stated above, the conditions of that year in respect of the scarcity of rainfall seriously imperilled the water-supply of the district, and the flushing operations had to be abandoned at a most critical time. With the early introduction of the new water supply from the lake Thirlmere, it is to be hoped that the same

inability to flush the sewers and passage drains regularly will not again occur, and that this method of procedure may be allowed full scope in the future.

Of the 563 cases of enteric-fever, 50, or 8·8 per cent., were recorded as being in children under five years of age. The greatest amount of prevalence of the disease was, as is usual, during the third and fourth quarters of the year, but much more so in the third than the fourth quarter.

TYPHUS-FEVER SICKNESS. RATES PER 1,000 OF THE POPULATION. Typhus-Fever

1888. 1889. 1890. 1891. 1892. Mean. 1893.

Salford (Borough) ... 0·16 0·02 0·04 0·05 0·02 0·06 0·02

SALFORD DISTRICTS { Regent Road ... 0·37 0·03 0·04 0·00 0·00 0·09 0·00
Greengate 0·00 0·00 0·06 0·00 0·01 0·01 0·03
Pendleton 0·06 0·00 0·02 0·02 0·02 0·02 0·08
Broughton..... 0·00 0·03 0·00 0·00 0·00 0·01 0·00

Typhus Fever.—There were five cases of this disease notified during the year, as against the same number in 1892, one in 1891, and six in 1890. The first case was that of a labourer aged 17 years, living with his widowed mother and three other children in a cottage of two rooms. The history of the case appeared to be want, and overcrowding of the dwelling. He was removed to the Ladywell Sanatorium under a mistaken diagnosis of enteric-fever on May 2nd; but on his arrival at the hospital he was at once isolated as a case of typhus-fever. The nurse appointed to the case caught the disease after three days, but happily both cases recovered. On August 31st, two cases of typhus occurred in an over-crowded back to back house in the Pendleton district, and these were followed by a further case from the same dwelling on September 7th. In these cases, as in the earlier ones, only to a greater extent, poverty, over-crowding, and filthiness of the dwelling, must be considered as the probable causes of disease. Two of the last three cases proved fatal; but in no case was there any spread of the disease from the two houses where infection first appeared.

Puerperal-Fever.—There were 30 cases of puerperal-fever Puerperal-Fever during the year, as against 26 cases in the year 1892, 32 cases in 1891, and 22 cases in 1890. Particular enquiries were made in each case as it came to the knowledge of the Health Department. None of the cases call for remark of any special kind, and it was not found necessary in any case to recommend the attending midwife to discontinue her calling for a time. Disinfection, as required, was carried out in accordance with the custom in this Borough.

Erysipelas.—There were 147 cases of erysipelas notified Erysipelas during the year, as against 86 cases in 1892, 53 cases in 1891, and 76 cases in 1890. None of the cases call for special remark,

Erysipelas

but, as the number of cases was so much larger than usual, it seems well to give brief particulars as to the preceding causes of the cases.

Particulars of cases.	No. of Cases.
After confinement	1
Facial and after colds	59
Facial simply	5
After colds or chills	28
Following falls	4
„ wounds	13
„ burns	2
„ cuts	3
„ boils	3
„ sprain.....	1
„ Inflammation of knee	1
„ Bite of horse	1
„ Abscesses	3
Abdominal	1
Causes undiscoverable	22
Total	147

The cases were distributed as follows throughout the Borough :—Regent Road, 59 ; Greengate, 33 ; Pendleton, 41 ; and Broughton 14 cases. Of the whole number of cases, 7 only were in infants under five years of age. In 4 only of the cases had there been previous attacks, namely among the facial cases following colds.

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, DURING THE YEAR 1893, IN THE COUNTY BOROUGH OF SALFORD, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

Names of localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.			Regis-tered Births.	Aged Under 5 or Over 5.	NEW CASES OF SICKNESS IN EACH LOCALITY, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.											NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.																				
	Census 1891.	Esti-mated to Middle of 1893.	[c.]			[d.]	[e.]	Small-Pox.	Scarlatina.	Diphtheria.	Membranous Group.	FEVERS.					Cholera.	Erysipelas.	Small-Pox.	Scarlatina.	Diphtheria.	Membranous Group.	FEVERS.					Cholera.	Erysipelas.	Cases sent to Hos-pital under mis-taken Diagnosis.							
												Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.							Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.										
(H2) REGENT ROAD	79,025	81,514		2882	Under 5. 5 upwds.	8 77	140 217	27 48	10 2		25 262	2 2		.. 11	.. 57	2 77	54 131	3 16			12 145	2 1			1 19	.. 7	8 77	17 148	119 306	19 31	1 ..	23 275	3 1		.. 3	2 42	3 15
(GREENGATE ..	30,707	30,707		1155	Under 5. 5 upwds.	5 21	24 30	13 11	16 8	.. 1	3 39	.. 2	.. ..	.. 7	1 32	5 21	13 19	8 4	1 ..	.. 1	22 ..	.. ..	.. ..	.. 2	1 13	1 2	5 21	5 148	13 72	4 31	70 275	1 1	.. ..	.. 3	7 42	3 15	
(H1) PENDLETON ..	50,543	52,140		1817	Under 5. 5 upwds.	3 32	98 172	14 47	6 4	.. 4	16 135	1 4	.. ..	9 ..	1 40	3 29	37 84	2 8	.. ..	.. 4	7 70	1 ..	.. ..	.. 1	.. 7	3 2	29 148	84 306	8 31	..	70 275	1 1	.. ..	.. 3	7 42	3 15	
BROUGHTON ..	37,804	39,066		1193	Under 5. 5 upwds.	1 21	52 132	18 29	5 3	.. ..	6 77	.. 1	.. ..	3 ..	1 13	1 21	15 72	6 3	.. ..	38 ..	3 ..	.. ..	.. ..	.. ..	.. 3	.. 2	21 148	72 306	3 31	..	38 275	.. 1	.. ..	.. 3	.. 42	3 15	
Borough	198,139	203,427		7047	Under 5. 5 upwds.	17 151	314 551	72 135	37 17	.. 5	50 513	3 9	.. ..	.. 30	5 142	17 148	119 306	19 31	1 ..	23 275	3 1	.. ..	.. ..	.. 2	.. 42	17 148	119 306	19 31	..	23 275	3 1	.. ..	.. 3	2 42	3 15		

State here whether "Notification of Infectious Disease" is compulsory in the District: *Yes*. Since when? 1882. Besides the above-mentioned Diseases, insert in the columns with blank headings the names of any that are notifiable in the District, and fill the columns accordingly. State here the name of the Isolation Hospital used by the sick of the District. Mark (H) the Locality in which such Hospital is situated; and if not within the District, state where it is situated: (H1) *Lodgwell Sanatorium* (H2) *Wilton Hospital, and Moor Wheel Hospital, Salford*.

IV.

ORDINARY SANITARY WORK OF THE
HEALTH DEPARTMENT.

IV.

WORK OF THE HEALTH DEPARTMENT.

Staff of Sanitary Inspectors under the Health Department. ^{Staff}—There has been a further slight increase in the staff of the Health Department. In 1892, under the conditions imposed by the Factory and Workshops Act of 1891, it was found necessary to appoint a special inspector for the visitation and supervision of the sanitary requirements of workshops. In 1893, it became necessary to appoint an inspector under the Shop Hours Act of 1892. It might have seemed that the provisions of this Act were appertained rather to the range of police than sanitary control, but the Council having decided that the provisions of the Act were to be carried out by the Health Committee, an inspector was accordingly appointed, and the result of his work will appear in this section of my report. Thus, the staff consists of a chief inspector of nuisances, an assistant inspector, an inspector of drainage work, a lodging-house inspector, a canal boats and food and drugs inspector, a smoke inspector, a workshops inspector, an inspector under the shop hours act, a veterinary inspector, and five district inspectors of nuisances. There are, besides, eight disinfectors, whose time is pretty regularly occupied with those special duties, but who, when not so employed, are engaged in inspecting special districts for obvious nuisances.

Though not to be exactly regarded as officially part of the staff of the department, there are now certain female health visitors working in the borough, a portion of whose salaries is paid by the Corporation, and who report direct daily to the Medical Officer of Health. I shall deal further on in this report with the subject of their appointment and the result of the work done by them during the year 1893.

Systematic Inspection. ^{Inspection}—The systematic inspection of the Borough has been continued as in former years, as well as by Sub-Committees of the Health Committee during the summer months when, as in the year 1892, the country was threatened with an invasion of cholera. In all there were, without counting the inspections and visitations of the female health visitors before alluded to, 36,942 inspections of premises of all kinds, as against 32,130 in 1892; and 33,171 re-inspections, as against 21,601 in 1892. In respect of the common lodging-houses, there were 15,054 and 542 by day and night respectively, as against 10,692 and 493

in the preceding year; this increased visitation of the lodging-houses was an imperative necessity during the prevalence of the epidemic of small-pox, when it was a matter of the utmost importance to discover every case of real or doubtful illness in such places, or which might have been brought over night into the Borough. There were also 1,354 inspections of slaughter-houses during the year, as against 1,284 in the year 1892, 733 of shippens, as against 609, and 361 of bakehouses, as against 372. There were besides, 292 cases of overcrowding of dwellings abated, as against 128 cases in 1892, and 167 slopstone pipes disconnected from drains, as against 63 discovered in the preceding year. Thus, it will be seen that the regular work of the Health Department is kept up at a high level, and in many directions is increasing instead of diminishing.

Nuisances

Abatement of Nuisances under the Public Health Act.—The table of "Particulars of work done," which is given at the end of this section of the report, shews the number and variety of the nuisances which have been abated during the year 1893. Many of these were, of course, nuisances of a temporary character only, but still a large proportion were nuisances of an established kind which were more or less permanently abated. Among matters which were dealt with other than those which have been already mentioned, 2,745 house drains were repaired and 1,001 were re-constructed, 750 house drains were trapped, and 559 downspouts were disconnected from drains, 1,636 privies and ashpits were repaired, 522 new water-closets were provided, 83 soil-pipes were ventilated, 277 houses were limewashed, and 33 houses and one cellar were closed as unfit for human habitation.

1,790 observations of smoke emitted from manufacturing chimneys were made, 454 passages were flagged, 3,348 were repaired, and 238 were re-drained: 111 animals were ordered to be removed from improper situations, and 2,928 houses were repaired by their owners after notice being served by the department.

Particulars as to other matters coming under this heading may be seen on reference to the before-mentioned table.

Vans, Tents, &c.

Vans, Tents, Sheds, &c., used as Dwellings.—The following table shews the number of vans, tents, sheds, &c., which have come under the notice of Inspector Wilkinson during the year.

No. of Vans. Definite Business.	Gypsies.	Notices Issued.	Total No. of Vans.
321	3	1	324

These travelling habitations were regularly inspected on their arrival and during their stay in the Borough. In the single case in which it was necessary to serve a notice, a small and badly ventilated van was being used as a sleeping van; this was prohibited and no further action was required. The number of vans in 1892 was 329, and in 1891 was 201.

Dairies and Milkshops.—At the end of the year 1893 there were 586 dairies and milkshops remaining on the register, this number being four more than in the year 1892. Sixteen milkshops were discontinued during the year, and twenty were newly registered. Dairies, &c.

The following table gives the particulars of the dairies and milkshops in the several districts and for the Borough :—

District.	No. on Register 1892.	Discontinued in 1893.	Newly Registered in 1893.	Total Remaining in 1893.	Notices Served.	Cases of Sickness.				
						Scarlet Fever.	Enteric Fever.	Diphtheria.	Removed to Hospital.	Nursed at Home.
Regent Road...	278	12	12	278	12	...	...	...	...	...
Greengate	88	...	2	90	2	...	...	...	...	...
Pendleton	89	3	4	90	4	...	1	...	1	...
Broughton	127	1	2	128	10	...	1	...	...	1
Borough	582	16	20	586	28	...	2	...	1	1

There was thus a slight increase in the number of dairies and milkshops in the borough during 1893, the increases being: two in Greengate, one in Pendleton, and one in Broughton.

It was necessary to serve only 28 notices for limewashing the walls and for the provision or renewal of signs over doorways, as against 129 notices in 1892.

Only two cases of infectious disease occurred at any of these houses, namely, one of enteric fever in each of two houses. One of these was in the Broughton and the other in the Pendleton district: one was nursed at home, and the other was removed to the Ladywell Sanatorium. Both places were thoroughly disinfected, and no spread of the disease occurred from them.

Supervision of Bakehouses.—There were at the end of the year 113 bakehouses remaining on the register, being an increase of 3, as compared with the previous year. Bakehouses

Bakehouses

The following table gives the particulars as to the bakehouses in the Borough :—

District.	No. of Houses.	No. of Ovens.	Kind of Ovens.				Employees.			Notices Served.	Summonses Issued.
			Waggon.	Flue.	Iron.	Gas	Men.	Women.	Boys.		
Regent Rd.	56	71	40	18	13	...	104	27	8	7	...
Greengate ..	10	16	15	1	...	...	26	...	2	...	...
Pendleton...	30	42	22	17	2	1	53	13	5	5	...
Broughton..	17	21	11	7	3	...	25	7	2	1	...
Borough ...	113	150	88	43	18	1	208	47	17	13	...

During the year these bakehouses were periodically as well as casually visited, —339 inspections being made during the daytime, and 22 at night or in the early morning. It was found necessary to issue 13 notices as against 17 in 1892, namely, 7 in the Regent Road district, 5 in Pendleton, and 1 in Broughton.

Two cases of infectious diseases occurred in two of the houses, namely, one of scarlet-fever in the Regent Road district, which was removed to the Ladywell Sanatorium, and one of enteric-fever in the Pendleton District, which was nursed at home, but was well and successfully isolated.

The bakehouses were found to be generally kept in a cleanly and satisfactory condition.

Brick-burning

Brick-burning.—The following table gives the number of brick-kilns under supervision in 1893 :—

District.	No. in 1892.	Discon- tinued in 1898.	Newly Established.	Still under Supervision.
Regent Road.....	2	...	...	2
Greengate	...	..	...	...
Pendleton	7	...	...	7
Broughton	...	...	...	...
Borough	9	...	...	9

There were no changes in the number or situation of brick-Brick-burning making places during the year.

At one place in the Regent Road district, and at three in Pendleton, the bricks are machine made, at the remainder of these places they are hand made.

No complaints were received in respect of these places of business.

Noxious Trades.—The following is a list of the noxious Noxious Trades trades in operation in this Borough, arranged according to the district :—

Nature of Trades.	No. of Trades in the Districts and Borough.					Discon- tinued.	Newly Regis- tered.
	Regent Road.	Green- gate.	Pendle- ton.	Brough- ton.	Borough.		
Soap Boiling ...	2	2	1	...	5	...	...
Tripe Dressing ..	7	3	4	...	14	1	1
Oil and Tallow...	1	3	1	...	5	...	...
Tanneries, &c...	1	1	1	...	3	...	...
Varnish and Tar.	1	3	2	...	6	...	...
Chemical.....	3	2	2	1	8	...	1
Telegraph Cable	...	2	..	...	2	...	...
Rop Cleaning .	3	1	1	1	6	...	1
Floor Cloth.....	1	1	...	...	2	1	...
Rubber	1	2	3	...	6	...	1
Paper	1	...	1	1	3	...	...
Totals	21	20	16	3	60	2	4

There are sixty trades registered as Noxious, as against fifty-eight in 1892.

One tripe dresser, one chemical works, one skin dressing, and one rubber works, have been newly registered.

Noxious Trades

On the other hand, one floor cloth, and one tripe dressing works have been discontinued.

Complaints were received as to a tannery in Greengate, a rubber works in Pendleton, and a tallow works in the Regent Road district.

In the first case the proprietor promised to put down apparatus for precipitating the solids, which was subsequently done, and which had the effect of a saving of water to the firm, and preventing the fouling of the river.

Notices in the other cases were issued, and the nuisances were abated.

In all, five notices were issued namely, one in the Regent Road district, one in Greengate, two in Pendleton, and one in Broughton.

A works for bone boiling—or size making from bones, in Broughton was commenced, but the nuisance arising from it was so great that it was prohibited.

Applications were received from two persons, one to be allowed to commence a business of swill boiling, and one for dripping melting.

There were complaints about the swill boiler as soon as he commenced, and he was noticed to discontinue the business.

The dripping melter's application has been postponed until certain alterations have been carried out.

Common
Lodging-houses

Supervision of Common Lodging Houses.—There were, at the end of the year, 44 common lodging-houses on the register, as against 45 in the year 1892, and 46 in the year 1891. These 44 houses contain 259 rooms, with accommodation for 1,437 persons, as against 241 rooms and accommodation for 1,369 persons in the year 1892. The condition of these houses has been enormously improved; for when they were only occasionally inspected, there was every temptation for laxity on the part of landlords and tenants—especially of the latter. Now, with an almost daily inspection, the observance of the bye-laws is much more strict. In 1892, it was necessary to serve 31 notices on landlords and 93 notices on tenants of common lodging-houses; in 1893, on the other hand, it was only necessary to serve 17 notices on landlords and 13 on tenants, in addition to notices for limewashing. A large amount of bedding was destroyed during the year as being unfit for use, and was replaced by new bedding.

During the year 1893, there were fifteen cases of infectious disease in common lodging-houses, namely, in the Regent Road district, 10 of small-pox and 3 of enteric-fever; and in the Pendleton district 2 cases of small-pox. All these cases were promptly removed to hospital.

The average accommodation of persons was as follows :—

	Nightly Lodgers.				Weekly Lodgers.			Common Lodging-houses
	Male.	Female.	Total.		Male.	Female.	Total.	
Regular	498	51	549	.....	3486	357	3843	
Casual	118	16	134	.....	826	112	938	
Totals	<u>616</u>	<u>67</u>	<u>683</u>	.....	<u>4312</u>	<u>469</u>	<u>4781</u>	

The following is a summary table as to the common lodging houses in the Borough :—

District.	No. of Houses registered in 1893.	No. of Houses in all.	No of Rooms.	Bed Accommodation.	Complaints.	Infectious Diseases notified in houses.	Notices served on	
							Landlords.	Tenants.
Regent Road ...	1	23	147	703	...	13	8	5
Greengate	...	16	82	616	...	...	6	8
Pendleton	1	5	30	118	...	2	3	...
Broughton	...	...	...	...	...	...	...	...
Borough ...	2	44	259	1437	...	15	17	13

The following are the number of inspections paid to these houses during the year :—

	Day.		Night.
Regent Road	6,404	...	265
Greengate	4,490	...	131
Pendleton	1,312	...	32
Broughton	...	...	...
Borough	12,206	...	428

Houses Sub-Let in Lodgings.—There were 782 of these Sub-let Houses houses registered at the end of the year, as against 779 in the year 1892. The 782 houses contain 2,518 rooms. These houses are under the supervision of the common lodging-house Inspector, and have required a constant amount of visitation during the epidemic of small-pox in the Borough, and when the early discovery of every doubtful case of illness was of so much importance.

Sub-let Houses The following table gives the particulars of these houses in the several districts of the Borough :—

TABLE I.

District.	No. of houses now registered.	No. of rooms.	Houses found un-registered during the year.		Complaints.	Notices served on	
			Since registered.	Since discontinued.		Land-lords.	Ten-ants.
Regent Road.....	392	1213	68	73	5	20	31
Greengate	267	1007	49	42	4	19	47
Pendleton	94	214	10	9	1	...	2
Broughton	29	84	5	5	1	...	...
Borough.....	782	2518	132	129	11	39	80

TABLE II.

CASES OF INFECTIOUS DISEASES OCCURRING IN SUB-LET HOUSES.

DISTRICT.	Number of Infected Houses.	Number of Cases of Infectious Sickness.							Total.	
		Class of Houses.		Small-pox.	Scar-let Fever.	En-teric Fever.	Diph-theria.	Ty-phus Fever.	In registered Houses.	In Unregistered Houses.
		Regis-tered.	Un-regis-tered.							
Regent Road	21	20	7	7	9	8	3	...	21	6
Greengate	4	3	1	...	1	1	2	...	3	1
Pendleton	1	1	...	...	1	...	...	...	1	...
Broughton	1	...	1	1	...	...	...	...	...	1
Borough.....	27	24	9	8	11	9	5	...	25	8

TABLE III.

DISTRICT.	Nursed at Home.					Removed to Hospital				
	Small-pox.	Scar-let Fever.	Enteric Fever.	Diph-theria.	Ty-phus Fever.	Small-pox.	Scar-let Fever.	Enteric Fever.	Diph-theria.	Ty-phus Fever.
Regent Road	...	4	1	2	...	7	5	7	1	...
Greengate	...	...	1	...	...	...	1	...	2	...
Pendleton	...	...	...	...	...	...	1	...	...	...
Broughton	...	...	...	...	...	1	...	...	...	...
Borough	...	4	2	2	...	8	7	7	3	...

Registration of Small Dwelling-Houses under Sec. 90 of the Salford Tramways and Improvement Act, 1875.—

Small Houses under Local Act, 1875

There still remains 62 of the original 73 houses registered under this Act, most of the remainder are unoccupied and nearly ruinous. The cause of this condition of things is owing to daily inspection and consequent prevention of over-crowding among certain tenants, hence there have been no rents obtainable from some houses, and such property is falling into decay. In such of the houses as are still occupied, the condition of the interiors and the bedding shows decided improvement. One case of small pox and two of enteric-fever occurred among these houses during the year. There were 103 night inspections made of these houses.

Canal Boats.—The Canal Boats Inspector reports that, during the year, there have been 1061 inspections of canal boats, against 1,326 in 1892. The 1,061 boats inspected contained 1,998 men, 469 women, and 235 children, making a total of 2,702 persons. The average occupancy per boat was 2.5 persons. The number of children of school age found upon the boats was 2, and the School Board were communicated with in each case.

Canal Boats

No case of infectious disease was found on the boats.

The following is a list of the defects found in the various boats :—

Boats out of repair.	Cabins in want of repair.	Boats working without certificates.	Boats of which the names or numbers were defective.	Cabins found in a dirty condition.	Cabin with defective ventilation.	Cabins with bilge water under floors causing nuisance.
48	21	3	20	21	3	10

Canal Boats

Thirty-three notices were served on owners of boats as to the above defects, all of which have been complied with; nine boats were found to be supplied with defective water vessels, which were afterwards remedied; twenty-one cabins required painting, these have been done; two written cautions have been issued to captains and five verbal cautions been given by the Inspector.

It is to be observed that a smaller number of boats were inspected than in the preceding year; this was in consequence of the cotton and coal strikes, and the short supply of water in the various canals, the locks of which were closed for several days at a time. The bad state of trade undoubtedly had an injurious effect on the boat traffic—some owners had several of their boats tied up, and were not working as much as three months at a time.

The number of tramps riding in boats is now reduced to a trifling amount, and the boat people are becoming cleaner in their habits.

Adulterations

Proceedings under the Adulteration Acts.—During the year, 955 samples of food and drugs were submitted to the Public Analyst for the Borough, Mr. J. Carter Bell, F.I.C., as against 853 in 1892, and 901 in the year 1891. Of the 955 samples, 63 or 6·6 per cent. were adulterated, as against 7·4 in 1892, and 6·1 in 1891.

32 samples of milk were taken for analysis from the Workhouse and hospitals of the Borough, and 31 samples were received from tradesmen for analysis, together with the usual fee of 2s. 6d. 14 written cautions were sent and in ten cases of slight adulteration verbal cautions were given by the Inspector.

In respect of margarine, 18 small shop-keepers were cautioned by the inspector for not having the margarine labelled according to the Act.

27 test samples of spirits were taken at Christmas, out of which 16 were returned as adulterated from 1 to 13% of water in excess. These have been dealt with as follows:—In 5 cases a caution was given, in 3 cases official samples were taken with a view of prosecution, and in 8 cases where the adulteration was very slight no further action was taken. 3 cases of milk adulteration were traced to the milk supply of Manchester, and were referred to that authority to follow up.

The following is a statement of cases in which legal Adulterations proceedings were adopted under the Sale of Food and Drugs Act.

Articles.	No. of Cases.	Amount of Fines respectively.	Total amount of Fines.
		£ s. d.	£ s. d.
Milk	18	1 0 0	
„		0 10 0	
„		0 2 6	
„		0 15 0	
„		1 0 0	
„		0 10 6	
„		0 2 6	
„		0 10 6	
„		0 10 0	
„		Withdrawn on payment of costs,	
„		1 0 0	
„		5 0 0	
„		0 0 1	
„		1 0 0	
„		1 0 0	
„		Dismissed.	
„		0 10 0	
„		0 15 0	
			14 6 1

SAMPLES COLLECTED BY THE INSPECTOR UNDER THE "SALE OF FOOD
AND DRUGS ACT," FROM 1875 TO 1893,

	Total.	Milk.	Butter.	Bread and Flour.	Drugs.	Gro- ceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875...	60	37	1	1	1	...	7	4	9
1876...	119	43	2	18	34	17	...	...	5
1877...	390	114	7	159	22	30	18	37	3
1878...	418	197	10	35	31	25	24	70	26
1879...	518	306	16	130	15	28	10	13	...
1880...	506	269	12	48	5	52	71	18	31
1881...	478	376	11	1	...	61	...	8	21
1882...	465	300	7	47	13	3	58	20	17
1883...	497	436	1	29	1	12	...	2	16
1884...	507	359	10	35	7	...	64	11	21
1885...	478	399	21	14	4	13	21	...	6
1886...	483	361	6	21	...	36	1	22	36
1887...	472	355	2	...	...	25	42	43	5
1888...	883	701	6	...	30	83	...	9	54
1889...	832	652	35	...	21	85	15	17	7
1890...	874	591	41	38	24	64	12	49	55
1891...	901	611	20	20	18	134	23	74	1
1892...	853	613	78	31	13	61	7	44	6
1893...	955	855	15	1	...	51	6	27	...

PERCENTAGE OF ARTICLES RETURNED AS ADULTERATED.

	Total.	Milk.	Butter.	Bread and Flour.	Drugs.	Gro- ceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875...	66.6	62.1	100.0	0.0	0.0	...	100.0	75.0	66.6
1876...	40.3	55.8	50.0	27.8	35.3	17.6	...	...	60.0
1877...	27.4	40.3	28.6	11.3	13.6	6.7	0.0	97.3	0.0
1878...	29.9	29.4	10.0	2.9	51.6	4.0	4.2	67.1	0.0
1879...	12.0	13.1	25.0	5.4	26.6	10.7	10.0	2.3	...
1880...	20.2	25.2	75.0	6.3	0.0	17.3	11.3	11.1	9.7
1881...	16.3	18.1	9.1	0.0	...	1.6	..	37.5	23.8
1882...	15.5	19.0	14.3	2.1	53.8	0.0	1.7	10.0	17.6
1883...	6.6	6.7	0.0	3.4	0.0	8.3	...	50.0	6.3
1884...	7.1	2.8	40.0	5.7	57.1	...	0.0	27.3	61.9
1885...	5.2	4.8	4.8	7.1	0.0	15.4	0.0	...	33.2
1886...	3.9	1.1	50.0	0.0	...	25.0	0.0	0.0	8.3
1887...	8.7	9.9	0.0	...	...	8.0	2.4	7.0	0.0
1888...	6.3	2.8	100.0	...	26.6	13.3	...	0.0	20.4
1889...	10.09	7.3	22.8	...	28.5	24.7	0.0	0.0	14.2
1890...	5.1	1.9	50.0	0.0	0.0	15.6	0.0	30.6	12.7
1891...	6.1	1.4	35.0	10.0	0.0	22.3	0.0	9.4	0.0
1892...	7.4	4.2	29.5	0.0	23.1	18.0	0.0	0.0	0.0
Average, 1883-92	6.7	4.3	33.2	2.6	13.6	15.1	0.2	12.4	15.7
1893...	6.6	4.0	26.7	0.0	0.0	17.6	0.0	59.3	0.0

List of samples of Milk taken from Farmers' Cans during the year 1893, AT THE PLACE OF DELIVERY, by the Food Inspector, and the results of the Analyses.

No.	Names and Addresses.	Results of Analyses.	Places of Delivery.
1	W. J., Mobberley.....	Pure	Old Trafford Station.
2	W. J., Mobberley.....	Do.	" "
3	W. W., Plumbley.....	Do.	Central Station.
4	S. T., Preston Brook	Do.	Seedley Station.
5	B. W., Mill Bank, Lower Peover.	Do.	Central Station.
6	B. W., Knutsford... ..	Do.	" "
7	A. C., Cromford	Do.	Old Trafford Station.
8	W. J., Lower Hall	Do.	Exchange Station.
9	C. W., Clitheroe	Do.	Pendleton Station.
10	P. L., Langho	Poor Milk	" "
11	A. S., Langho	Pure	" "
12	P. J., Easing, Leek.....	Do.	London Road Station.
13	T. W., Ashbourne	Poor Milk	" "
14	B. W., Uttoxeter	Pure	" "
15	B. W., Uttoxeter	Do.	" "
16	S. W., Madley ..	Do.	" "
17	S. W., Madley ..	Do.	" "
18	D. T., Chatburn	Very Poor Milk	Pendleton Station.
19	M. W., Salwick	Pure	Victoria Station.
20	M. W., Salwick	Do.	" "
21	T. J., Learoad	Do.	" "
22	D. T., Chatburn	Do.	" "
23	S. W., Heywood	Do.	" "
24	D. T., Chatburn	Do.	" "
25	D. T., Chatburn	Do.	" "
26	D. T., Chatburn {	9% added water..... } 16% cream abstracted }	" "
27	C. W., Rimmington.....	Pure	" "
28	C. W., Rimmington.....	Do.	" "
29	W. J., Chatburn ..	Do.	" "
30	W. J., Chatburn ..	Do.	" "
31	T. T., Dounham	Do.	" "
32	T. T., Dounham	Do.	" "
33	D. T., Chatburn	Do.	" "
34	D. T., Holden	Do.	" "
35	D. T., Clitheroe	Do.	" "
36	D. T., Chatburn	Do.	" "
37	B. A., Rimmington	Do.	" "
38	F. J., Newsholme	Do.	Pendleton Station.
39	F. J., Newsholme	Do.	" "
40	W. T., Clitheroe	Do.	" "
41	P. R., Gisburn	Do.	" "
42	C. W., Clitheroe	Do.	" "
43	R. R., Chatburn	Do.	" "
44	F. J., Newsholme	Do.	" "
45	F. J., Newsholme.....	Do.	" "
46	P. J., Gisburn	Do.	" "
47	D. T., Chatburn	Do.	" "
48	D. T., Chatburn	Do.	" "
49	D. T., Chatburn	Do.	" "
50	D. T. Chatburn	Pure	" "

List of samples of Milk taken from Farmers' Cans during the year 1893, AT THE PLACE OF DELIVERY, by the Food Inspector, and the results of the Analyses.—Continued.

No.	Names and Addresses.	Results of Analyses.	Places of Delivery.
51	R. R., Barton	Pure	Pendleton Station.
52	A. J., Barton	Do.	" "
53	B. E., Droylesden	Do.	Seedley Station.
54	B. E., Droylesden	Do.	" "
55	F. J., Crewe	10 % added water...	" "
56	B. R., Frodsham	Pure	Ordsal Lane Station.
57	B. R., Frodsham	Do.	" "
58	G. W., Ince	Do.	" "
59	N. S. H., Helsby	Do.	" "
60	N. S. H., Helsby	Do.	" "
61	J. T., Dunham Hill	Do.	" "
62	J. T., Dunham Hill	Do.	" "
63	J. T., Dunham Hill	Do.	" "
64	J. T., Dunham Hill	Do.	" "
65	B. J. B., Caergurle	12 % added water ...	Seedley Station
66	B. J. B., Caergurle	3 % added water	" "
67	B. J. B., Caergurle	3 % added water	" "
68	G. J. A., Nantwich	Pure	" "
69	G. J. A., Nantwich	Do.	" "
70	B. J. B., Caergurle	Very Poor Milk	" "
71	B. J. B., Caergurle	Pure	" "
72	H. T., Norton	Do.	" "
73	S. H., Whalley	Do.	Pendleton Station.
74	H. R., Higher Winna	9 % added water	Victoria Station.
75	H. R., Sabden	6 % added water	" "
76	H. R., Whalley	5 % added water	" "
77	M. J., Sabden	Poor Milk	" "
78	L. G., Tinstead	Pure	" "
79	H. J., Breck Hall	Do.	" "
80	T. G., Broughton	Poor Milk	" "
81	H. J., Chatburn	Pure	Exchange Station
82	W. J., Chatburn	Do.	" "
83	W. J., Chatburn	Do.	" "
84	D. H. T., Mickle Trafford	Do.	" "
85	D. H. T., Mickle Trafford	Do.	" "
86	D. H. T., Mickle Trafford	Do.	" "
87	D. H. T., Mickle Trafford	10 % added water ...	" "
88	D. H. T., Mickle Trafford	Pure	" "
89	M. R. A., Astley	Do.	Ordsall Lane Station.
90	M. R. A., Astley	Do.	" "
91	M. R. A., Astley	Do.	" "
92	D. T. H., Mickle Trafford	Do.	Exchange Station.
93	S. H., Mouldsworth	Do.	" "
94	F. J., Newsholme	Do.	Pendleton Station.
95	W. J., Clitheroe	Do.	" "
96	J. H., Gisburn	Do.	" "
97	P. C., Clitheroe	Do.	" "
98	H. H., Penrith	Do.	Ordsall Lane Station.
99	T. A., Gisburn	Do.	Pendleton Station.
100	F. J., Newsholme	Do.	" "

List of samples of Milk taken from Farmers' Cans during the year 1893, AT THE PLACE OF DELIVERY, by the Food Inspector, and the results of the Analyses.—Continued.

No.	Names and Addresses.	Results of Analyses.	Places of Delivery.
101	P. T., Chatburn	Pure	Pendleton Station.
102	C. G. C., Chatburn	Do.	" "
103	G. J., Chatburn	Do.	" "
104	H. W., Chatburn	Do.	" "
105	P. R., Gisburn	Do.	" "
106	W. S., Rimmington.....	Do.	" "
107	W. J., Clitheroe	Do.	" "
108	M. J., Newsholme	Do.	" "
109	D. H., Wrexham	Do.	Exchange Station.
110	D. H., Wrexham	Very Poor Milk	" "
111	D. H., Wrexham	5 % added water ...	" "
112	D. H., Wrexham	2 % added water ...	" "
113	D. H., Wrexham	2 % added water ...	" "
114	D. H., Wrexham	Pure	" "
115	D. H., Wrexham	Do.	" "

Smoke Nuisance.—The Smoke Inspector reports that during the year 1893, he recorded 1,790 observations, against 1,287 in the year 1892, and ,1485 in the year 1891. Smoke from
Factory
Chimneys

During the year. 112 stokers and others were cautioned by the inspector for negligent use of the furnaces under their charge. At the same time 39 firms were reported and dealt with by the Health Committee. It is only fair to say that the bulk of these cases occurred during the late serious coal strike when nearly every manufacturer in the district was glad enough to get any coal that would keep the furnaces going. No prosecutions were, therefore, instituted during the continuance of the coal strike, which continued from the month of August to the month of December.

NUMBER OF BLACKSMITHS' FORGES IN SALFORD AT THE
END OF 1893.

Forges.	Borough Total.	Regent Road.	Greengate.	Pendleton.	Broughton
Blacksmiths.	85	29	23	22	11

Smoke from
Factory
Chimneys

NUMBER OF BOILERS AND FURNACES IN USE WITHIN THE FOUR
DISTRICTS OF THE BOROUGH AT THE END OF 1893.

Registration Sub-Districts.	Boilers and Furnaces in use.		Notices issued by the Health Committee.	
	Properly Constructed.	Improperly Constructed.	Number Served.	Number complied with.
Regent Road ...	175	65	135	63
Greengate.....	138	59	99	71
Pendleton.....	190	51	98	62
Broughton	31	16	36	19
Borough Total.	534	191	368	215

The following is a list of cases in which legal proceedings were taken in respect of Smoke Nuisances during the year 1893 :—

Particulars of Offence.	No. of Cases.	How dealt with.	Total Amount of Fines.
Negligently using fur- naces constructed to consume their own smoke	9	7 fined, two summonses were withdrawn.	£4 2 6

Diseases of
Animals

Prevalence of Epizootic Diseases.—Inspector Fordham, M.R.C.V.S., reports that, during the year 1893, no case of pleuro-pneumonia or of foot and mouth disease occurred in the Borough of Salford. One outbreak of swine-fever occurred in the month of December on premises off the Eccles Old Road, in the Pendleton district. Five swine were slaughtered, three of which were diseased and the remaining two which had been in contact with the diseased animals. The carcasses were destroyed in the furnace at the Manure Depôt, and the premises were thoroughly disinfected.

Mr. Fordham made post-mortem examinations of four dogs, which were reported by the police as supposed to have been suffering from Rabies, but in no case was any trace of that disease found.

Unwholesome Meat.—Over 35 tons of meat unfit for ^{Meat Unfit for} human food were seized during the year, all of which was destroyed ^{Human Food} in the furnace at the Manure Dépôt. The following table gives the monthly seizures of such meat, and the amounts :—

MONTHLY SEIZURES OF UNWHOLESOME MEAT.

Month.	No. of Seizures.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
January	29	1	5	1	7
February	43	3	15	2	15
March	52	3	19	...	...
April	36	2	16	1	20
May	25	1	6	...	20
June	35	2	18	2	21
July	45	3	15	2	5
August	37	5	...	2	10
September	35	3	5	1	4
October	25	2	...	2	17
November	31	3	...	...	...
December ..	24	2	4	1	8
Totals.....	417	35	7	2	15

Meat Unfit for Human Food

Table showing the kinds of unwholesome meat seized, and the weight:—

Kind.	No. of Seizures.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
Beef	54	15	19	...	...
Mutton	283	13	14	2	25
Veal	58	2	13	2	3
Cheese	1	...	5	3	...
Pork	12	2	9	2	7
Game	1	...	...	...	9
Fish	7	...	1	3	13
Eggs	1	...	3	...	14
Totals	417	35	7	2	15

Cowsheds, &c.

Cowsheds and Shippons.—At the end of the year 1893 there were 25 cowsheds and shippons on the register, as compared with 28 in the previous year. These were regularly inspected and the keepers of them found to comply with the regulations.

Private Slaughter-houses

Private Slaughter-houses.—There were 36 private slaughter-houses in the Borough at the end of the year 1893, being the same number in use as at the end of the year 1892. These establishments were regularly inspected and limewashed, and the keepers of them found to comply with the regulations.

Examinations of Drains by the Smoke-Test

Drainage Examinations.—Whenever the repair or reconstruction of drains is ordered by the sanitary authority, it is required that such drains be tested to see whether they are effective before they are covered in. Under this scheme 1,492 tests were applied during the year, affecting as many as 2,077 houses. Tests were also applied to 150 passage drains, the tests having to be repeated in most cases owing to defects being discovered by the escape of smoke when the drains were presumably effective and ready for covering in.

Similar tests for the purpose of discovering insanitary conditions arising from drainage were made during the year. There

were 97 applications from householders for such tests to be made at their premises, as against 87 in 1892, and 41 in 1891. There was a total of 745 tests made during the year, of which 723 shows defects of drainage affecting 5,307 houses. On these discoveries 723 notices were issued for defects to be remedied, and by the end of the year 651 of these had been complied with.

Examinations of
Drains by the
Smoke-Test

The following list shews the number and character of the various defects thus disclosed:—

Defects.	No. of Cases.
Drains partly or wholly choked with stagnant drainage matter and sediment in a state of putrefaction	176
Drains defectively constructed or having broken pipes and allowing percolation into soil of polluted liquids	241
Gully traps improperly laid to drains and allowing escape of drain air and soakage of waste water into soil near foundation walls of houses	355
Drain inlets defectively trapped and allowing escape of foul air into or near houses	98
Waste pipes of baths, lavatories, or sinks defectively trapped or directly connected to drains or soil pipes and affording ready means of ingress into houses of drain or soil pipe air	85
Rainwater pipes with open heads and defective joints in close proximity to windows, directly connected to drains, and allowing escape of drain and sewer air into houses	270
Soil pipes having leaky joints or improperly ventilated	93
Defective water-closets.....	46

Inspection of Workshops.—The following is a tabular statement of the work done in respect of the inspection of workshops for sanitary purposes, under the Factory and Workshops Act, for the year ending December 31st, 1893:—

Inspection of
Workshops

	Inspections of Workshops.
Regent Road.....	1637
Pendleton	909
Greengate	859
Broughton	646
	4051

Inspection of Workshops	Inspections of Workshops.
Workshops registered	949
Notices issued for limewashing	193
Limewashing done without notice	24
Total limewashed	217
Notices to factory inspector as to the employment of women and girls	38
Beds removed from workrooms	3
Workrooms ventilated	2
Schedules left for outworkers	59
Sanitary defects, &c., referred from the workshops inspector to the district inspectors...	31

Shop Hours Act **Shop Hours Act, 1892.**—The inspector appointed under this Act has made the following tabular statement with regard to the work done by him from June, 1893, when he was appointed, to the end of December, 1893 :—

District.	Total number of Inspections of Shops.	Number of Notices served at shops, vide sec. 4 of the Shop Hours Act, 1892.	Total Shops on Register in the Borough.	Number of Young Persons under 18 years Employed.	Male.	Female.	Actions taken.	Fined.	Dismissed.	Cautioned.
Regent Road	2564	1047	259	304	278	26	...	...	...	1
Greengate.....	894	344	75	102	98	4	1	1	...	1
Pendleton	878	314	145	173	155	18	1	...	1	...
Broughton	1114	417	117	141	127	14	...	...	...	...
Borough	5450	2122	596	720	658	62	2	1	1	2

From this it will be seen that two prosecutions were instituted, one of which failed owing to the production of a birth certificate upsetting the original statement of a lad that he believed himself to be under 18 years of age, and the other, in which a conviction was obtained, with a fine of 2s. 6d. and costs.

It appears to be the general wish of the shopkeepers to close early and to reduce the hours of labour, but they are not assisted in this by the general public—especially on Saturday evenings—who prefer to make their purchases at a late hour even approaching

midnight. A little more consideration on the part of the artisan classes would make the working of the Shop Hours Act much more easy.

LIST OF CASES, OTHER THAN ADULTERATION AND SMOKE CASES, TAKEN
BEFORE THE MAGISTRATES DURING THE YEAR 1893.

Particulars of Offence.	No. of Cases	How dealt with.	Total Amount of Fines.
			£ s. d.
Exposing diseased animals } for sale... }	5*	3 fined in all	21 10 6
Premises in such a state } as to be a nuisance..... }	3	{ 2 "Orders to abate" made } { 1 summons withdrawn † }	...
Employing young persons } under 18 years of age } over 74 hours in the week }	3	{ 1 fined..... } { 2 dismissed..... }	0 2 6
Totals	11	{ 4 fined..... } { 1 imprisoned } { 2 "Orders to abate" ... } { 2 Dismissed } { 1 summons withdrawn } { 1 ,, not served }	21 13 0

* One sentenced to three months imprisonment. One summons not served owing to false address having been given.
† Nuisance having been abated.

TABULATED PARTICULARS OF WORK DONE BY THE HEALTH DEPARTMENT
DURING THE YEAR ENDING DECEMBER 30th, 1893.

	Boro'	Regent Road.	Green gate.	Pendle- ton.	Brough- ton.
No. of Complaints received.....	4972	1766	1616	898	692
{ Of Dwelling-houses	17973	4971	4369	5607	3026
„ Cellars	...	...	...	...	...
„ Schools.....	...	...	...	...	...
„ Lodging-houses	15054	7431	6093	1402	128
„ „ —at night...	542	268	234	40	...
„ Slaughter-houses.....	1354	613	128	445	168
„ Dairies and Milkshops	27	2	...	9	16
„ Shippons	733	86	19	238	390
„ Ashpits after complaint ...	3	...	...	3	...
„ Tips	367	...	...	323	44
„ Miscellaneous	528	37	...	463	28
„ Bakehouses—day	339	174	33	81	51
„ „ —night.....	22	13	5	4	...
Re-inspections.....	33171	9699	4854	6315	12303
Action taken.. { Notices issued ...	4975	1948	895	1263	869
{ Letters written.....	4319	1355	662	1247	1055
{ Summonses issued	38	14	8	9	7
Houses Disin- { Stripped.....	1093	473	127	309	184
fectd { Fumigated	764	354	91	175	144
{ Repaired.....	2745	863	474	664	744
{ Reconstructed	1001	209	383	268	141
House Drains { Trapped	750	277	253	124	96
{ Slopstone Pipes discon: from...	167	41	30	28	68
{ Downspouts disconnected from..	559	72	119	109	259
{ New, provided	65	18	2	7	38
Privies and { Repaired and drained	1636	420	399	186	631
Ashpits..... { Cleansed by tenants.....	21	13	...	8	...
{ Emptied after complaint	1928	667	539	384	338
{ Reconstructed	101	21	15	21	44
Water Closets { New, provided	522	208	135	67	112
{ Ventilated	51	...	8	2	41
{ Soil-pipes ventilated.....	83	9	11	13	50
{ Urinals provided	10	4	4	1	1
{ Dwelling-houses	277	65	184	26	2
{ Cellars	32	...	20	12	...
Limewashed... { Lodging-houses.....	200	110	66	24	...
{ Slaughter-houses	143	72	12	43	16
{ Dairies and Milkshops.....	41	1	...	3	37
{ Shippons	104	10	3	38	53
Closure of..... { Houses unfit for habitation.....	33	6	27	...	...
{ Cellars unfit for habitation.....	...	...	...	...	...
Cellar Areas filled up	5	5	...	...	...
{ Lodging-houses.....	167	75	63	18	11
Newly { Slaughter-houses	...	...	...	...	...
Registered.. { Dairies and Milkshops.....	18	14	...	2	2
{ Second-hand Goods Stores.....	160	64	32	49	15
Accumulations { Manure and Refuse	212	32	119	37	24
Removed ... { Stagnant Water	13	4	...	8	1
Smoke { Observations taken	1790	340	583	745	122
Nuisance ... { Notices served	9	4	1	1	3
Passages and { Flagged	454	83	112	60	199
Yards { Repaired	3348	1378	602	643	725
{ Drained	238	92	24	45	77
Infected Bed: { Stoved	1054	579	116	162	197
and Clothing { Destroyed	62	24	30	5	3
Food Samp. purch. for analysis	955	360	176	187	232
Bad Meat..... Seizures made	417	394	12	8	3
Animals removed from improper situations... ..	111	34	12	39	26
Overcrowding of dwellings abated.....	292	98	149	39	6
Houses repaired, by owners, after notice.....	2928	803	514	238	1373

V.

QUINQUENNIAL SANITARY SURVEY,

1889-93.

V.

SANITARY SURVEY OF SALFORD.

The accompanying map is the second of its kind, which I have had the honour to prepare for the information of the Corporation, as to the relative mortalities of the several enumeration districts of the Borough. It is, as was its immediate predecessor, a representation of the mean quinquennial death-rates obtaining in such enumeration districts. But, inasmuch as the enumeration districts adopted for the Censuses of 1881 and 1891 respectively do not coincide, it is obvious that only a rough comparison is permissible between the two maps. On the other hand, if a similar map be constructed for the quinquennial period 1894-98, that map and the present one will be directly comparable.

In the Broughton district, however, improvement may be noted in the north-eastern quarters, as well as in the eastern where they border on the Bury New Road. There are, on the other hand, higher mortalities adjoining the Township of Cheetham, where a large increase in building has taken place within the last few years. District No. 158, is forming the subject of a special enquiry. The area of Lower Broughton shows great improvement. Regarding the whole of Broughton, it can be said that, with the exception of district No. 158, it contains no districts coloured blue as against eight such districts for the quinquennial period 1883-88. There is especially improvement along the banks of the river.

In the Greengate district, improvement is to be seen in sub-districts Nos. 56, 82 and 81. Otherwise there is no manifest improvement in special districts; but, at the same time, the districts are so widely different in area compared to the former ones that correct comparison of mortalities is only possible in a very few instances.

In the Regent Road district, no improvement is manifest in the area between the Crescent and Chapel Street, Cross Lane, and the L. and N. W. Ry. and the river. On the other hand, improvement is to be found in districts Nos. 45, 22, and 21, and still more so in No. 25 where water-closets have been largely substituted for old midden-privies. Also, along the banks of the river from Everard Street to Hereford Street, in district No. 40, and several others, improvement is to be seen.

In the Pendleton district, there is improvement in sub-districts Nos. 93 and 91, which formerly were coloured blue, also in those numbered 118, 120, 121, and 124. There is also improvement, to a moderate extent, in the districts south of Broad Street.

On the whole, while the present map is in many respects an improvement on its predecessor, it is also indicative of the need for much work yet in some districts where greater improvement might have been expected.



MAP OF THE COUNTY BOROUGH OF SALFORD

Divided into Registration Sub-districts and Enumeration Districts, shewing the Average Death Rate in each District in the years 1889 to 1893.

■ Represents Rates of Mortality of 30 per 1,000 and upwards

■	"	"	"	25 to 30 per 1,000
■	"	"	"	20 to 25 per 1,000
■	"	"	"	15 to 20 per 1,000
■	"	"	"	under 15 per 1,000





VI.

SPECIAL SANITARY MATTERS.

VI. SPECIAL SANITARY MATTERS.

Insanitary Dwellings of the Working-Classes.—(1) *The Closure of Cellar and other Dwellings.*—It will be seen, from the tabular statement of work done in the Borough, that no cellar was formally closed as being unfit for human habitation during the year 1893. But, on the other hand, 21 cellar dwellings became disused or were demolished to enable railway extensions to be made. A total of 21 cellars was thus virtually put an end to for dwelling purposes, leaving a total of 90 cellar-dwellings in the Borough at the end of 1893, as against a total of 279 such dwellings when I entered office in the year 1889. The further gradual closure of cellar-dwellings will be proceeded with, so as not to cause more inconvenience or risk of overcrowding in other dwellings than may be avoided. But, in respect of houses, it was found necessary to close a block of 6 in a court in the Regent Road district, and a block of 27 houses in the Greengate district, owing to serious insanitary conditions in connection with them, and their being in a gross state of disrepair. The former block remains closed; but the latter block having been properly dealt with, the Corporation withdrew the closure order and they have since become re-inhabited.

(2) *Progress of Scheme on Official Representations of the Medical Officer of Health, dated 1890.*—There was some progress made in this matter during the year 1893,—as much indeed as the Health Committee could make. In my last annual report I stated that, though the Royal Assent to the scheme was given on August 5th, 1891, it was May 1st, 1893, before an arbitrator sat to determine the price to be paid for certain blocks of property which could not be bought by private treaty. One half of the principal of the two areas being dealt with by the Corporation was cleared in the summer of the year, having been secured by private treaty, and the erection of the new block of artisans' dwellings was actually commenced in the following December. An application for leave to appeal, however, from the decision of the Arbitrator in respect of the remainder of the property of the area being dealt with, delayed the pulling down of all the houses on the area, and consequently with the erection of the new dwellings. These delays have been very troublesome, but it is to be hoped that the work of the Committee will not be further impeded in this matter.

Model Lodging-
House

Model Common Lodging-House.—The model common lodging-house which is being erected on a site in Bloom Street, in the Greengate district, made distinct progress during the year. The actual building operations were begun in the spring of the year, and the roofing in was completed in January, 1894. It may, therefore, be anticipated that the opening of the premises, for the purpose for which they have been erected, will take place some time in the approaching summer months. The number of single male lodgers to be accommodated will be 280 in separate cubicles. There will be three storeys of large dormitories containing the cubicles, and a house adjoining is being built for the manager of the establishment.

Demolition of
Dwellings for
Railway Schemes

Demolition of Dwellings by Railway Extensions.—During the year, some 36 dwelling-houses, five lock-up shops and one works have been demolished for purposes of railway extension. These were situated in New Blackfriars Street, Cable Street, Gravel Lane, Catcliffe Street, Norton Street, Duke Street, and Dawsons' Croft. These houses generally represented inferior property, the demolition of which will probably prove to be a benefit to the Borough.

Hospital
Accommodation

Hospital Accommodation.—The Ladywell Sanatorium proved fully equal to the needs of the Borough, except that additional provision had to be made for the isolation and treatment of cases of small-pox during the epidemic of 1892-3. As stated in my special report on the prevalence of that disease last year, the last case of small-pox sent from the Borough to the Monsall Hospital was on January 20th, 1893, as the Monsall authorities were unable after that date to receive any further cases from Salford. In the interval, therefore, between January 20th and March 9th, when a small-pox hospital had been provided at Mode Wheel, the old Wilton Hospital was temporarily refitted as a temporary isolation hospital for cases of small-pox, and the agreement between the Corporation and the Monsall Authorities was finally terminated.

The following table shows the distribution of cases isolated at the expense of the Corporation since 1883:—

Year.	Wilton.	Ladywell.	Modewheel	Pendlebury.	Monsall.	Total.
1883 ...	342	...	—	...	1	343
1884 ...	645	...	—	...	30	706
1885 ...	482	...	—	...	14	510
1886 ...	910	...	—	...	45	973
1887 ...	892	...	—	...	37	962
1888 ...	753	...	—	...	102	871
*1889 ...	888	...	—	...	239	1132
*1890 ...	914	...	—	...	25	943
*1891 ...	532	...	—	...	1	533
*1892 ...	326	...	415	...	24	765
†1893 ...	58	...	848	...	—	1013

* Under the heading of Wilton Hospital must be included the sheds at Hope Hospital in temporary use as an annexe of the Wilton Hospital.
† Only small-pox was treated in the Wilton Hospital during this year.

The difference between these figures and those in the table contained in the earlier portion of this report relating to infectious diseases is accounted for by the inclusion of other infectious diseases which are not notifiable, such as varicella, measles, and whooping-cough.

Excrement and Refuse Disposal.—It gives me much satisfaction to be able to report that the Pendleton Destructor was actually commenced in August, 1893, and was in a forward state at the beginning of the present year—roofing having been begun and the chimney having reached half its ultimate height. Refuse Disposal

Further progress was made during the year in the substitution of water-closets for old midden privies, the total number of new water-closets having been 522, as against 740 in 1892, 1,009 in 1891, 653 in 1890, and 132 in 1889. These are distributable as follows:—Regent Road district, 208; Greengate, 135; Pendleton, 67; and Broughton 112. As it is essential that with the gradual adoption of the water-carriage system, the efficiency of the main sewers should be maintained, I am glad to report that portable flushing tanks are now in operation, and that under the superintendence of the Borough Engineer the scheme of annually cleansing all the sewers of the Borough is being carried out.

Pollution of the River Irwell and the Salford Docks of the Ship Canal.—Owing to the great heat of the summer, and to the fact that to a large extent the waters of the Ship Canal were impounded between the large Salford Docks and Barton Bridge, the emanations from the waters of the Ship Canal proved particularly offensive to those parts of the Borough which lay within half a mile of the Canal. The old bed of the river Irwell, too, was filled up with matters dredged from the bed of the Canal, though the emanations from the semi-solid mass thus created were very much less offensive than those arising from the waters of the Canal itself. With the subsidence of the high temperature of the summer months, and the subsequent through communication for the waters of the Canal being established, the nuisance was somewhat abated. Such emanations as described could not fail to be productive, either alone or in combination with other causes, of ill-health, though they could not be proved to have been, in this instance, specially productive of any of the well-marked specific febrile diseases. It is, however, very much to be hoped that the operations of the Joint Board, for the Rivers Mersey and Irwell, will be speedily successful in reducing to a minimum the serious pollution of the waters feeding the Ship Canal from sewage matters, as well as from putrescible matters discharged from manufacturing factories. The existence of an enormous water-way through the Borough of Salford, navigable for ocean-going vessels, may be of material commercial benefit to the community; but the protection River Pollution

of this waterway from such pollution as may give rise to emanations, productive of a general lowering of health in its immediate neighbourhood, is of not less importance to the welfare of the Borough. It is, therefore, to be hoped that the pollution of the Irwell will soon be much reduced.

Female Health
Visitors

Female Health Visitors.—A new departure was made by the Health Committee in the year 1893, in the direction of securing the services of female health visitors not merely as reporters of nuisances and uncleanly houses, but also as educators of cleanliness both of the dwelling and of the children in the poorest houses in the Borough. The Corporation, having made arrangements with the Ladies' Health Society of Manchester and Salford, have now the services of six female health visitors working in the local districts of St. Simon's, the Adelphi, Trinity, Ordsall, and St. Georges'. They report daily on their house to house inspections to the Medical Officer of Health, and after their returns have been copied into office-registers these are forwarded to the Lady Superintendents of the Society, who are responsible for the punctual performance of the duties of the health visitors. The operations of these female workers in the cause of local sanitation only commenced at the end of the month of July and in the beginning of August. Since that time, they have paid 14,154 visits to dwelling houses in the districts above named; on these visits 911 houses or 6·4 per cent. proved to be dilapidated, 2,520 or 17·8 per cent. were dirty, 1,074 or 7·6 per cent. had dirty closets, at 838 or 5·9 per cent. there were drain nuisances, 298 or 2·1 per cent. were reported as overcrowded, and 2,159 or 15·3 per cent. were reported as having less specific nuisances in connection with them. As all the nuisances reported were referred to the regular inspectors of the department, it may be said that all received subsequent attention. In a few instances, it was found that every case of overcrowding could not be fully sustained, but, at the same time, the attention of the department being called to such suspicious cases was undoubtedly productive of good. While I expect to have on a further occasion fuller and more complete materials for expressing a definite opinion on the usefulness of this class of sanitary workers, I am decidedly of opinion, at the present time, that the work which has been done has been good work, and that it is not improbable that, in time, it may be desirable to seek for the extension of the operations of such workers into other populous parts of the Borough.

I have pleasure in appending the following tabular statement of five months work done by the six workers above referred to.

DISTRICTS.	Dilapi- dated Houses.	Dirty Houses.	Dirty Closets.	Drain Nuisances.	Over- crowded.	Other Nuisances.	No. of Visits.
St. Simons No. 1...	171	91	114	62	9	50	826
St. Simons No. 2....	201	294	285	192	11	104	1330
Adelphi	149	574	142	31	23	44	2268
Ordsall	152	627	90	288	53	1839	5460
Trinity	140	842	423	222	152	35	2800
St. George's	98	92	20	43	50	87	1470
Total.....	911	2520	1074	838	298	2159	14154

APPENDICES.

APPENDIX I.

COUNTY BOROUGH OF SALFORD.

MEMORANDUM OF THE NORTH-WESTERN BRANCH OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH AS TO THE PREVENTION OF PHTHISIS OR CONSUMPTION.

1. It has been abundantly proved that "phthisis" or "consumption" is an infectious disease. Kind of disease.
2. It does not appear that this disease is very, if at all, infectious through the breath of the patient; but it is quite certain that it is infectious by means of the *sputum* (expectoration) which a sick person coughs up from his diseased lung. Source of infection.
3. The means for preventing the spread of phthisis, therefore, from person to person, are made very simple by reason of the infective material being easily recognisable. Infective material easily dealt with.
4. The manner in which phthisis is usually spread from one person to another by means of the sputum is as follows:— Manner in which the disease is usually spread from person to person.
 - (a.) A consumptive patient coughs up a quantity of sputum, in which are enormous numbers of the specific germs, *bacilli tuberculosis*;
 - (b.) The sputum lodges where it is spat on, and there dries;
 - (c.) When dried, the sputum is usually pulverised and floats in the air as dust;
 - (d.) The germs contained in the sputum, though dried, are still living, and able to infect the air in which they are suspended;
 - (e.) The infected air when breathed is liable to cause phthisis. This is more particularly true of people who are already suffering from phthisis and whose recovery is thus prevented.

Measures for the prevention of the spread of phthisis from person to person.

5. All phthisical sputum must, therefore, be burnt or efficiently disinfected if any decided measure is to be taken to prevent the spread of phthisis from person to person :—

- (a.) The sputum from consumptive people should be at once burned by being spat into the fire, or better still, spat into a piece of paper or a rag, which should be at once burned ;
- (b.) Sputum may, however, be spat into a glass or porcelain vessel containing a 15 per cent. solution of carbolic acid, or (if carbolic acid cannot be obtained) simply some water. The contents of this vessel should be emptied once a day into the sewer outside, after which the vessel should be washed with boiling water and recharged ;
- (c.) All persons affected with a cough which has become chronic should, when attending a workshop, assembly, or church, spit into a hand-glass spittoon containing the aforementioned disinfecting solution. Such a spittoon may be conveniently attached to the person ;
- (d.) No person suspected to have consumption should spit into a pocket-handkerchief, or into a rag, or on clothes, unless such be forthwith burned ;
- (e.) No person, *whether consumptive or not*, should on any account spit on the floor or walls of any room, railway carriage, or public conveyance ;
- (f.) The eating utensils of a person suffering from consumption should be kept separate from all eating utensils of other persons, and should be washed separately from others in boiling water as soon after their use as possible ;
- (g.) The clothing of a consumptive person must be washed separately from the clothing of other persons ;
- (h.) The bowel discharges of a consumptive person should be disinfected with the aforementioned solution (b), and soiled linen should be at once boiled ;
- (i.) A consumptive patient should, as far as possible, occupy a separate room or rooms ; and where this is not possible special care should be exercised in destroying the sputum and excreta of the patient.
- (j.) The furniture of a consumptive patient's room should be as simple and plain as possible, without

fluting or carving which provide lodgment for dust ;
 especially should hangings and unnecessary carpets
 and rugs be avoided ;

Measures for the
 Prevention of
 the spread of
 phthisis from
 person to person.

- (k.) When it is settled that any member of the household is consumptive, the whole house should be at once thoroughly cleansed, including the walls and ceilings ; the furniture and floors should be washed with water as near boiling temperature as possible and containing carbolic acid in the proportion of 4 table-spoonfuls to a gallon of water ; the walls should be cleaned down with the crumb of bread, the ceilings whitewashed, and clothing and bedding disinfected by steam or by boiling as in the case of any one of the other infectious diseases ;
- (l.) The walls, floors and ceilings of the living and sleeping rooms of persons suffering from phthisis should be cleaned and disinfected in the foregoing manner once in every two months ;
- (m.) The room or rooms of a consumptive patient should, in the event of death, be disinfected as after death from one of the infectious diseases.

6. There are several further practical measures which may be taken to prevent the contraction of the disease, and which are not difficult to carry out :—

Additional
 general precau-
 tions against the
 spread of con-
 sumption.

- (a.) A mother who is suffering from consumption should on no account be allowed to suckle her child ;
- (b.) All cow's milk, *especially that for the use of children*, should be thoroughly boiled before being drunk. There is no sort of legitimate doubt that tuberculosis in children is largely caused by the use of un-boiled milk from consumptive cows. There is no truth in the belief that boiled milk loses its strength or is less digestible ;
- (c.) All meat should be thoroughly well cooked, and not be eaten underdone ;
- (d.) The lungs of all people should be more thought of and cared for by themselves than is at all common at the present time ;
- (e.) The dwellings of all people should be well and freely ventilated at least once in every day, and all dark corners and recesses therein should be kept scrupulously clean ;

- (f.) The lungs of all persons should be specially protected from the bad influences inseparable from damp and overcrowded dwellings, and from dusty occupations.
- (g.) Some household pets (for example cats), are susceptible of tuberculosis, and if suffering from any chronic disease should be destroyed.

Conclusion.

- 7. If the general public, and those who are sufferers from phthisis, would undertake to put the foregoing advice into actual practice, there can be no question but that there would in the next few years be a marked decrease in the fatality from phthisis in this country. Moreover, as it has been shown that phthisis, in its less advanced stages, is a *curable* disease, there is every encouragement to adopt these protective and hygienic measures for the benefit of a patient suffering from the disease,

Any house within the Borough will be purified by the Health Department free of cost, on the recommendation of a qualified medical practitioner to the Medical Officer of Health.

Town Hall, Salford,

September 15th, 1892.

APPENDIX II.

COUNTY BOROUGH OF SALFORD.

PRECAUTIONS AGAINST DIARRHŒA AND CHOLERA.

It is important for the public to understand that pains taken to correct insanitary conditions in and about their homes, and to prevent pollution of food and indiscretion in diet, are necessary to protect them from the spread of Diarrhœal Diseases, of which Cholera is one.

Measures of cleanliness, taken beforehand, are of far more importance for the protection of a district against diarrhœa or cholera, than removal or disinfection of filth after the appearance of these diseases.

It is, therefore, necessary that as little household refuse as possible should be stored in ashpits and ash-barrels, and that all that can be burned on the kitchen fire should be so destroyed. Trade refuse should be promptly removed to be destroyed in the Borough Destructors.

Cholera is essentially a filth disease. It is not contagious, in the sense that small-pox and scarlet-fever are. but is spread especially by the discharges of persons suffering from cholera.

If these discharges find their way into water which is used for food ; or if, by any defect of a drain, or through a foul closet or midden, they infect the earth and air ; or if beds, linen, or clothing soiled by them, be allowed to remain thus infected, then cholera will spread to those around the patient.

Therefore, attention should be directed to the following matters :—

1. Water must be guarded against pollution in every way. Wherever there is a cistern in a dwelling-house, this should be at once thoroughly cleaned out, and then covered over to protect it from dust and dirt. No water should be drawn for drinking purposes from a cistern used to flush a water-closet.

2. The dwelling-house and yard attached should be kept thoroughly clean, and be well washed out more frequently than usual.
3. If there be any drain defect, or bad smell about any house, or an overful midden, or choked closet, information should be at once sent to the Health Department, Town Hall, Salford. Every water-closet should be kept well flushed.
4. The gullies and sinks of every dwelling-house should be cleaned out daily by each householder, and the drains flushed daily with clean water, or with a solution of carbolic acid.
5. Beds, linen, or clothing soiled by discharges from patients suffering from diarrhoea should be disinfected, and such will be removed for disinfection on information being sent to the Health Department, Town Hall Salford.
6. In all cases of diarrhoea the discharges should be at once disinfected before being allowed to pass into the sewers, or deposited in an earth or other form of closet. Disinfecting powder may be obtained, when required, at the Salford, Pendleton, and Broughton Town Halls, at the police stations in Chapel Street, Regent Road, Trafford Road, Weaste, Silk Street, Irlams-o'th'-height, and Great Cheetham Street.

PRECAUTIONS WITH REGARD TO GENERAL HEALTH:

When cholera is prevalent, or likely to become so, it is especially necessary that all persons should lead very regular lives ; that they should avoid every habit of intemperance in solid food as well as in drink, and that they should abstain from eating unwholesome food. There is no reason why ripe fruit should not be eaten in moderation, but unripe or over-ripe fruit, stale fish or tainted meat should be carefully avoided, and all milk should be boiled before being used for food.

Finally every case of bowel disorder should be at once treated by a qualified medical practitioner.

CHARLES E. PAGET,

Medical Officer of Health.

Town Hall, Salford,

June 29th, 1893.